THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO: 1988

COUNCIL OF ONTARIO UNIVERSITIES

CONSEIL DES UNIVERSITÉS DE L'ONTARIO

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Prepared by
the Research Division
of the
Council of Ontario Universities
Requests for further information
should be directed to
Dr. James A. McAllister
Research Associate (Finance)

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO: 1988

This report on the financial position of Ontario universities continues and extends a pattern of analysis which has been developed over many years by the Council of Ontario Universities. It reviews trends over time and makes comparisons, among different sectors in Ontario and with other jurisdictions, to help put in perspective the adequacy of funding levels available to universities in this province. The most current data available are used throughout the report.

Universities as a Priority in Ontario

The priority afforded to this province's universities by the Government of Ontario has declined steadily and substantially over the past decade. As can be seen in Figure 1 and Table .1, the universities' share of total government spending has declined from 5.92% in 1977-78 to 4.6% in 1988-89. This decline in priority will cost the universities $438 million in operating grants in 1988-89 alone.

Provincial government expenditures have consistently grown faster than government grants to universities. As Figure 2 and Table 2 display, the government's expenditures increased at a rate a third faster than its grants to universities.

The provincial economy has also grown faster than university operating support. Figure 3 and Table 3 use the growth of the Ontario economy as a benchmark against which to measure the growth of Ontario government expenditure and operating grants to universities. While Ontario government expenditures, with or without public debt interest payments, have grown at about the same rate as the economy of the province as a whole, between 1977-78 and the late 1980's operating grants to universities expanded only 77% as much as the economy of the province.

While other publicly supported sectors have enjoyed real increases in their levels of support per client served, the position of Ontario universities has declined. Figure 4 and Table 4 show that hospitals, elementary and secondary schools, and institutions for adult offenders all have seen their per client expenditures increase faster than inflation. The position of post-secondary institutions, however, has declined. After the impact of inflation is eliminated, hospitals spent 27% more for each day of patient care in 1986-87 than they did in 1977-78. Universities, in contrast, spent 12% less for each full time equivalent student enrolled in 1986-87 than they did a decade earlier.

Interprovincial Comparisons

Government support per student to Ontario universities has traditionally been below the average for the rest of the country. Figure 5 and Table 5 demonstrate this point. In 1987-88, it is estimated that Ontario ranked sixth

among the ten provinces, or about $250 per student below the average for the other nine provinces. Ontario's position on this indicator has improved recently, in part because of improved levels of support but largely because the position of universities in other provinces has declined.

Table 6 compares operating grants to universities according to the relative wealth of each province. In 1985-86, the most recent year for which data are available, Ontario ranked ninth on this indicator with a level of grants 25 to 30% below the average for the other provinces. Table 7 demonstrates that, on seven of the eight indicators used by the Tripartite Committee on Interprovincial Comparisons, Ontario ranks below the average for the rest of the country. Table 8 compares the level of funding received by universities in Ontario and the other provinces with that received by hospitals and schools. While Ontario ranks third in the amount of money that school boards spend per student and fourth in the amount hospitals spend per patient day of care, it ranks ninth in the amount universities spend per student.

Relative to its economic growth, Ontario ranks ninth out of the ten provinces in growth of operating grants to universities. Figure 6 and Table 9 compare rates of growth of operating grants to universities in Ontario with those in other provinces, but with the data standardized to each province's gross domestic product. They demonstrate that while, in the decade between 1977-78 and 1986-87, every provincial government in the country failed to increase operating grants to universities as fast as their respective economies were growing, the Ontario government fell further behind all other provinces except

British Columbia.

Comparisons With the United States

Across a range of indicators, recent evidence makes clear that many state jurisdictions in the United States have afforded a higher priority to universities than the Government of Ontario has given to universities in this province. Figure 7 shows that, during the decade between 1977-78 and 1986-87, the growth rate of state government appropriations for higher education per full-time equivalent student in the United States exceeded the rate of inflation. In Canada, during that same time period, provincial government grants to universities per full-time equivalent student declined by 15 to 20%. This decline is evident both in Ontario and in the nine other provinces.

Figure 8 focuses the analysis onto the most recent four years of available information and compares Ontario with eleven states which are either among the largest states in the country or are major states in close proximity to Ontario. While grants to universities in Ontario between 1982-83 and 1986-87 barely kept up with inflation, state appropriations in some American jurisdictions grew by 35 to 40 per cent.

Even before these recent increases, American state and local governments were spending more on higher education than their Canadian counterparts. As Table 10 shows, **among eleven of the largest states, government spending on higher education in 1983-84 was, on average, about one-third greater than in Ontario.**

Figure 9 and Table 11 demonstrate that Ontario universities receive less in the way of government grants than do similar institutions in the United States and that they are unable to draw upon other resources to the same extent as their American counterparts. **Tuition fees are 70 or 80% higher at American public universities than at Ontario universities.** At American private universities, they are about six times as great as in Ontario. **Federal grants, largely for research, contribute twice the dollars per student at U.S. public universities and more than four times as much at private universities than they do in Ontario universities.** Gifts and endowment income obtained by public universities in the United States are of about the same significance as in Ontario, but at private universities they bring in about four times as much revenue.

Impact on University Spending Patterns

Chronic underfunding affects all areas of our institutions. Table 12 and 13 indicate that Ontario universities receive a lower share of both their operating funds and their total revenue from the provincial government than do universities in almost every other province. To offset a consistent lack of provincial government support, Ontario universities have had to obtain a higher proportion of their income from tuition and other fees and from other sources of income.

Table 14 demonstrates that **sponsored research expenditures have been growing at a faster rate than have the operating expenses more usually associated with instructional activity.** The former have increased by about 50 per cent in the

past decade, once the impact of inflation is eliminated, while the latter expenses have barely increased enough to compensate for inflation and certainly have not increased enough to compensate for inflation and enrolment growth. All of this places additional strains on existing university facilities since sponsored research grants and contracts rarely cover the cost of overhead associated with the research activity.

Table 15 demonstrates that **there has been a 16% decline in the constant dollar value of salaries and wages over the past decade.** While Table 16 demonstrates a significant increase in the constant dollar value of employee benefits, it also shows that more than half of these additional costs were incurred in statutory benefits programmes over which universities have little or no control. The constant dollar costs of these statutory programmes increased by 38%. Unemployment insurance premium costs went up by 83% during the past decade. Figure 10 compares the cost of university benefit programmes with those incurred by the Ontario government. **The provincial government's benefit package is significantly more expensive than that provided by universities.**

Table 17 and Figure 11 illustrate the extent to which inflation has been particularly severe for non-salary items purchased by universities. **The increase in the universities' non-salary price index has normally exceeded the CPI by significant amounts.** With increases in the CPI expected to average between 4 and 5 per cent per year over the next five years, as shown on Table 18, non-salary costs experienced by universities are expected to average between 5 and 6 per cent per year.

In its operating grants for 1986-87, the Government made special provision for library acquisitions. As shown in Figure 12 and Table 19, this reversed a decade-long decline of 21 per cent in constant dollar expenses for library acquisitions (a 32 per cent decline when enrolment growth is taken into account).

Although significant improvements have been made in recent years (see Figure 13 and Table 20), the provision of capital funds for construction continues to be highly problematic. Table 21 demonstrates that, **in 1986-87, Ontario universities spent less per student on buildings and related land and site services than did universities in all but one other province in the country.** As a result of this long period of capital underfunding, as shown in Figure 14 and Table 22, Ontario university buildings are depreciating faster than they are being renovated or replaced. In effect, **universities are living off their assets and not replacing what is being worn out.** This was formerly also the case with equipment, but as seen in Figure 15, in recent years expenditures have been high enough to exceed depreciation.

Ontario Government Financial Resources

It is clearly evident that Ontario could afford to invest more in its universities. Table 23 indicates that the Ontario government raises less money per capita or as a share of provincial wealth than any other provincial government in the country. Table 24 suggests that this is also the case if local government revenues are taken into account. Figure 16 and Table 25 show

that, although Ontario has the second highest tax capacity per capita in the country, its tax effort (whether or not the deficit is taken into account) is the lowest in the country.

Despite Ontario's extremely low tax effort, the Ontario government consistently enjoys an operating surplus. As Figure 17 and Table 26 show, in eight of the past eleven years, the Ontario government has been able to finance all of its operating expenditures plus a large part of its capital expenditures from taxes, transfers and other revenue. What borrowing takes place comes from the Canada Pension Plan and the Teachers' Superannuation Fund and is used exclusively to cover capital spending.

<u>One of the Returns on the Investment</u>

All of the above should be judged within the context of the continuing economic importance of the university sector. Figure 18 and Table 27 provide some evidence of the economic benefits derived from university training. Unemployment rates among university graduates are about one third the level of those who did not go beyond high school. Participation rates in the labour force are over twice as great for university graduates as for those with eight years or less of education.

FIGURES AND TABLES

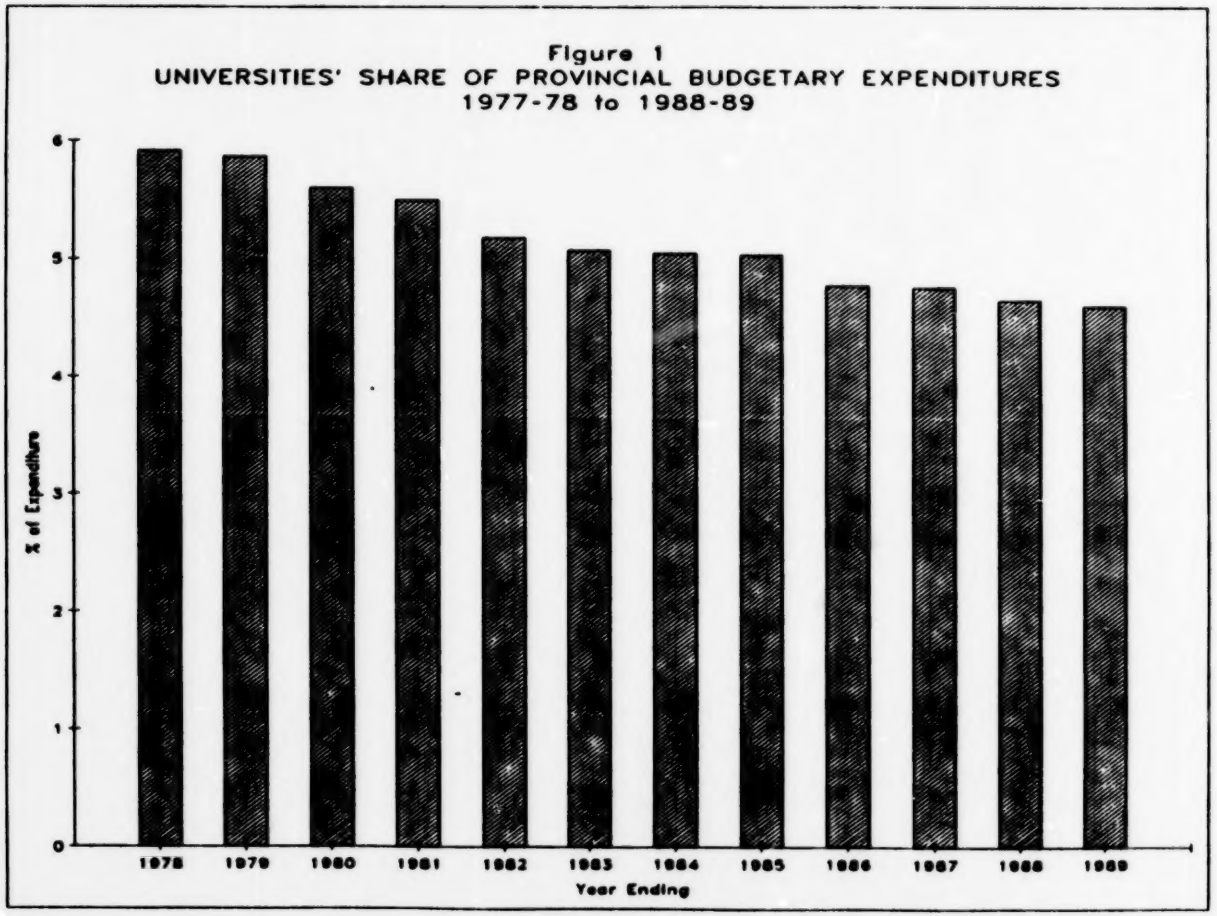


Figure 1
UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES
1977-78 to 1988-89
% of Expenditure
0
1
2
3
4
5
6
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
Year Ending

Table 1

Ontario Universities' Share of Provincial Budgetary Expenditures

(Excluding Public Debt Interest Payments)

	Universities' Share	Universities' Annual Shortfall from 1977-78 Level of Government Support	
	%	%	$ millions
1977-78	5.92	-	-
1978-79	5.87	0.86	4.1
1979-80	5.61	5.22	40.5
1980-81	5.50	7.09	61.1
1981-82	5.18	12.43	127.8
1982-83	5.08	14.22	167.8
1983-84	5.05	14.62	186.4
1984-85	5.04	14.86	202.3
1985-86	4.78	19.26	297.2
1986-87	4.76	19.60	326.8
1987-88 (interim)	4.65	21.40	388.1
1988-89 (budget)	4.60	22.23	438.4

Source: Ontario, Public Accounts, various years.
1988 Ontario Budget

Figure 2
VARIANCE BETWEEN GROWTH IN UNIVERSITY GRANTS
AND PROVINCIAL BUDGETARY EXPENDITURES
1977-78 to 1988-89

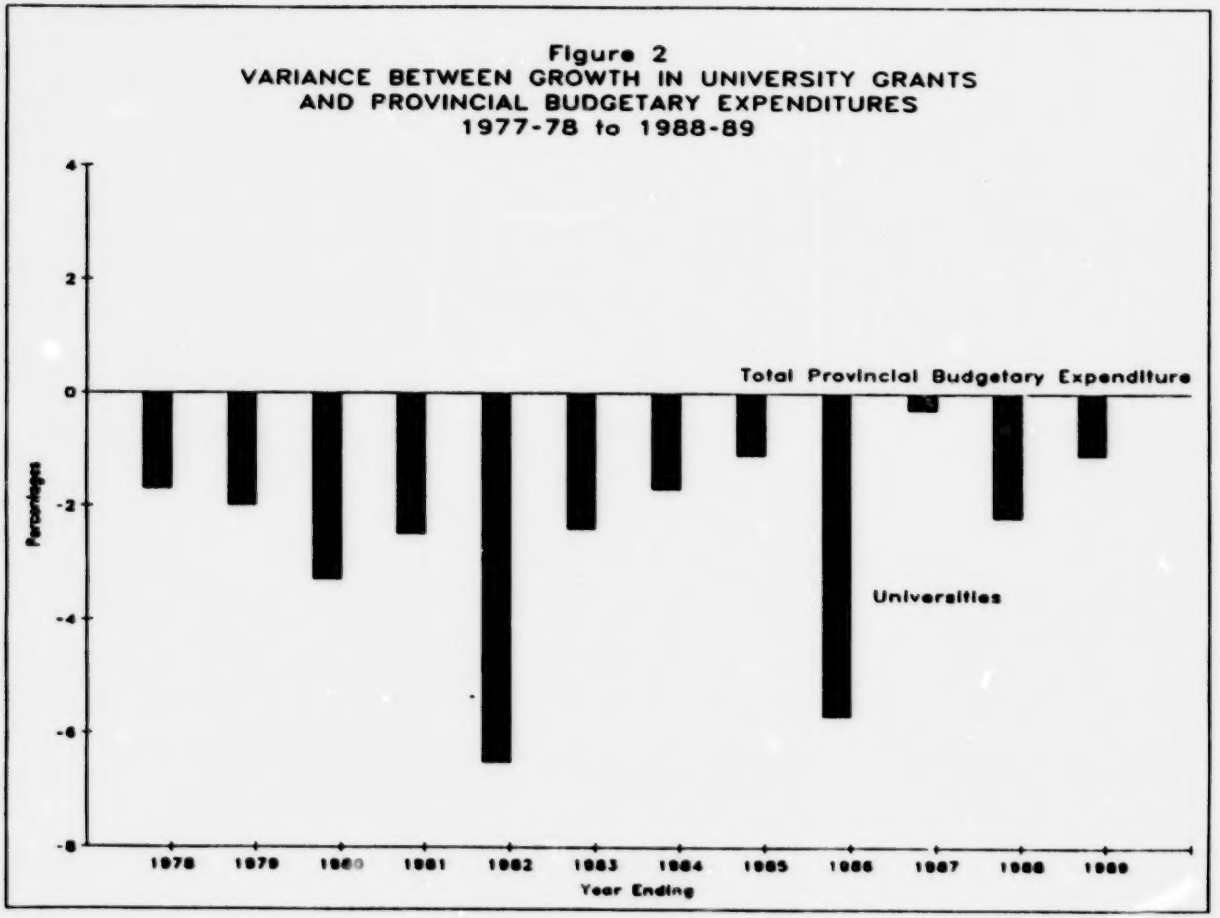


Table 2

Percentage Increase in Provincial Operating Grants and Total Budgetary Expenditures 1977-78 to 1988-89

	Operating Grants to Ontario Universities	Total Provincial Budgetary Expenditures	Universities Difference from Provincial Annual Increase
1977-78	8.4	10.1	(1.7)
1978-79	5.8	7.8	(2.0)
1979-80	5.1	8.4	(3.3)
1980-81	7.2	9.7	(2.5)
1981-82	10.2	16.7	(6.5)
1982-83	12.1	14.5	(2.4)
1983-84	7.5	9.1	(1.6)
1984-85	6.5	7.6	(1.1)
1985-86	5.1	10.8	(5.7)
1986-87	9.5	9.8	(0.3)
1987-88(e)	6.2	8.4*	(2.2)
1988-89(e)	7.5	8.6*	(1.1)
Average	7.5	10.1	(2.6)

Source: Province of Ontario, Public Accounts, various years.
1988 Ontario Budget

*Estimates of total provincial budgetary expenditure increases have been consistently understated. This has resulted in consistently underestimating the differences between increases in grants to universities, which do not change during the fiscal year, and increases in total provincial budgetary expenditures.

Figure 3
GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND GRANTS TO UNIVERSITIES RELATIVE TO THE GROWTH OF GDP
1977-78 to 1988-89

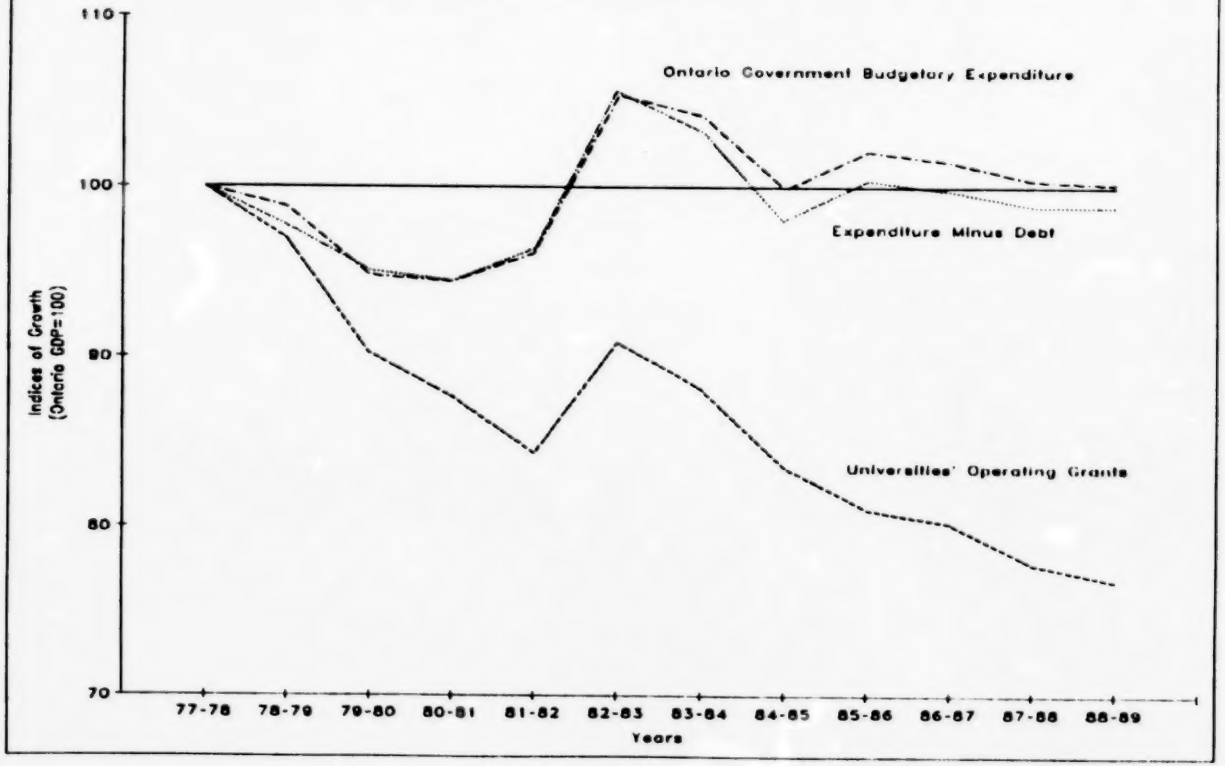


Table 3

Growth of Ontario Government Expenditures And Grants to Universities Relative To The Growth of GDP

1977-78 to 1988-89

	GDP Index Values	Government Expenditures Index	Government Debt Interest Index	Universities' Grants Index	Growth of Government vs. GDP	Government Minus Debt Interest vs. GDP	Growth of Universities' Grants vs. GDP
1977-78	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978-79	109.2	107.8	106.7	105.8	98.8	97.7	96.9
1979-80	123.3	116.9	117.3	111.1	94.8	95.1	90.2
1980-81	135.8	128.2	128.2	119.1	94.4	94.4	87.7
1981-82	155.7	149.7	149.9	131.3	96.1	96.3	84.3
1982-83	162.2	171.4	171.6	147.2	105.7	105.8	90.8
1983-84	179.5	187.0	185.2	158.2	104.2	103.2	88.1
1984-85	201.6	201.3	197.8	168.4	99.9	98.1	83.5
1985-86	218.5	223.1	219.1	176.9	102.1	100.3	81.0
1986-87	241.5	241.5	240.9	193.7	101.5	99.8	80.2
1987-88	264.5	265.7	261.7	205.7	100.4	98.9	77.8
1988-89	288.0	288.6	284.4	221.2	100.2	98.8	76.8

Note: The first four columns of information measure the growth of the economy (as measured by the Gross Domestic Product), the growth of provincial government expenditures, the growth of those same expenditures but excluding public debt interest payments, and the growth of operating grants to universities. The last three columns compare the rates of growth of government expenditures (including and excluding debt payments) and grants to universities with the rate of growth of the economy. That is, an index value of 100.0 indicates an identical growth rate to that of the GDP, a lesser value indicates a lower rate of growth, and a value greater than 100.0 indicates a growth rate greater than the growth rate of the GDP.

Sources: Public Accounts of Ontario, various years
Ontario Budget, April 1988

Figure 4
INDEX OF EXPENDITURES PER CLIENT SERVED IN ONTARIO
1977-78 to 1986-87
(Constant Dollars)

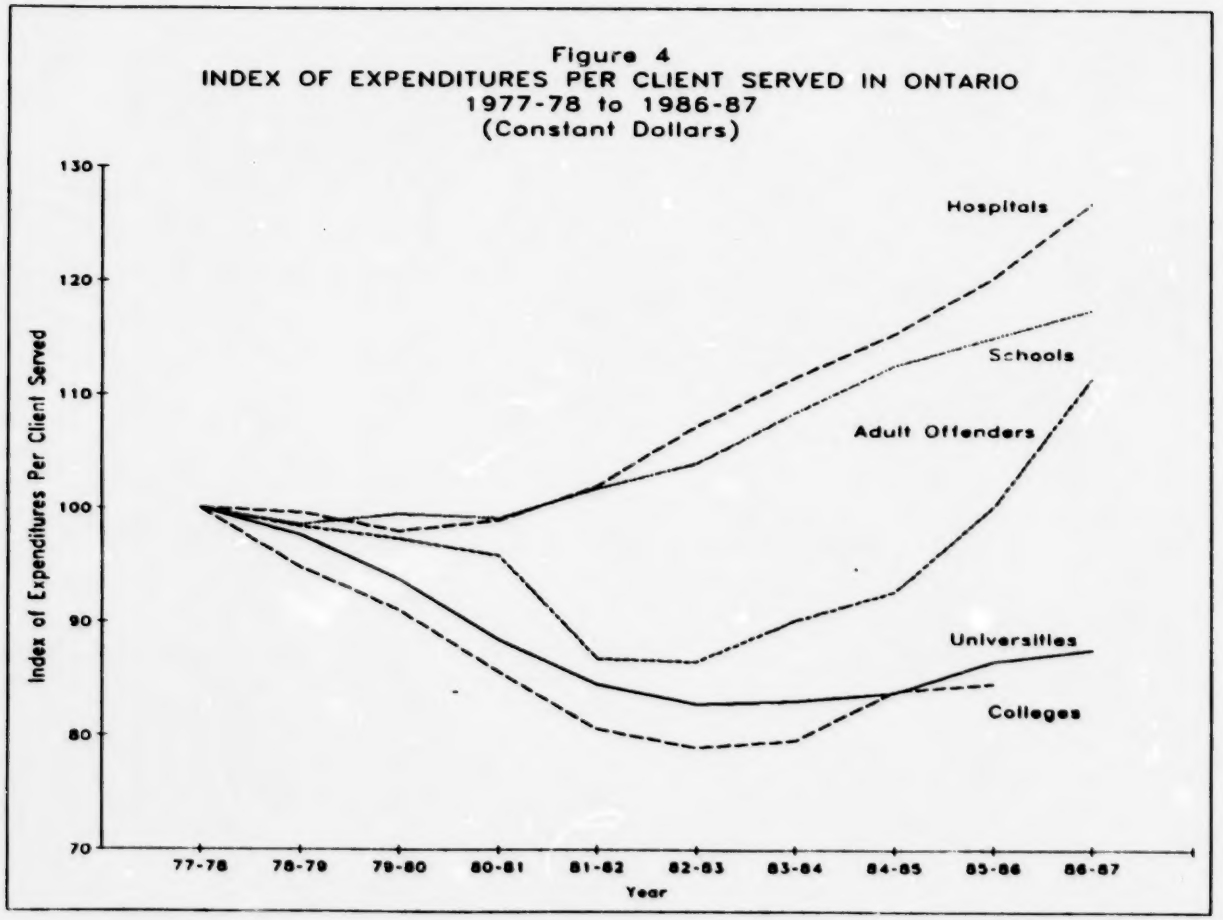


Table 4

Expenditures per Client Served, 1977-78 to 1986-87

		1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Elementary & Secondary Education (total school costs per pupil)1	Actual	$2,083	$2,240	$2,468	$2,735	$3,149	$3,517	$3,859	$4,168	$4,432	$4,708
	Constant	2,083	2,053	2,071	2,064	2,119	2,164	2,258	2,348	2,398	2,447
	Index	100.0	98.6	99.4	99.1	101.7	103.9	108.4	112.7	115.1	117.5
Hospitals (gross operating costs per diem)2	Actual	$151.91	$165.06	$177.19	$199.15	$230.06	$264.67	$289.52	$311.06	$337.82	$370.80
	Constant	151.91	151.29	148.65	150.30	154.82	162.87	169.41	175.25	182.80	192.72
	Index	100.0	99.6	97.9	98.9	101.9	107.2	111.5	115.4	120.3	126.9
CAATs (operating cost per FTE student)3	Actual	$3,558	$3,679	$3,857	$4,035	$4,261	$4,567	$4,840	$5,300	$5,565	
	Constant	3,558	3,372	3,236	3,045	2,867	2,810	2,832	2,986	3,011	
	Index	100.0	94.8	91.0	85.6	80.6	79.0	79.6	83.9	84.6	
Adult Offenders (expenditure per inmate day)4	Actual	$47.50	$50.97	$55.09	$60.32	$61.22	$66.80	$73.16	$78.17	$87.83	$101.89
	Constant	47.50	46.72	46.22	45.52	41.20	41.11	42.81	44.04	47.53	52.96
	Index	100.0	98.4	97.3	95.8	86.7	86.5	90.1	92.7	100.1	111.5
Universities (operating expense per FTE student)5	Actual	$4,723	$5,030	$5,277	$5,534	$5,929	$6,354	$6,697	$7,021	$7,557	$7,963
	Constant	4,723	4,610	4,427	4,176	3,990	3,910	3,918	3,956	4,089	4,139
	Index	100.0	97.6	93.7	88.4	84.5	82.8	83.0	83.8	86.6	87.6

p = preliminary

Sources:
1. Ministry of Education.
2. Ministry of Health, Hospital Statistics, various years
3. Ministry of Colleges and Universities, Multi-Year Plan Analysis of the Colleges of Applied Arts and Technology, various years.
4. Ministry of Correctional Services.
5. Ministry of Colleges and Universities, MCU Financial Report, various years; COU Special Committee on Macro-Indicators Ontario Universities Statistical Compendium, various years; and Committee of Finance Officers - Universities of Ontario, Financial Report of Ontario Universities, various years.

Figure 5
OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT
1977-78 to 1987-88
(Constant 1987-88 Dollars)

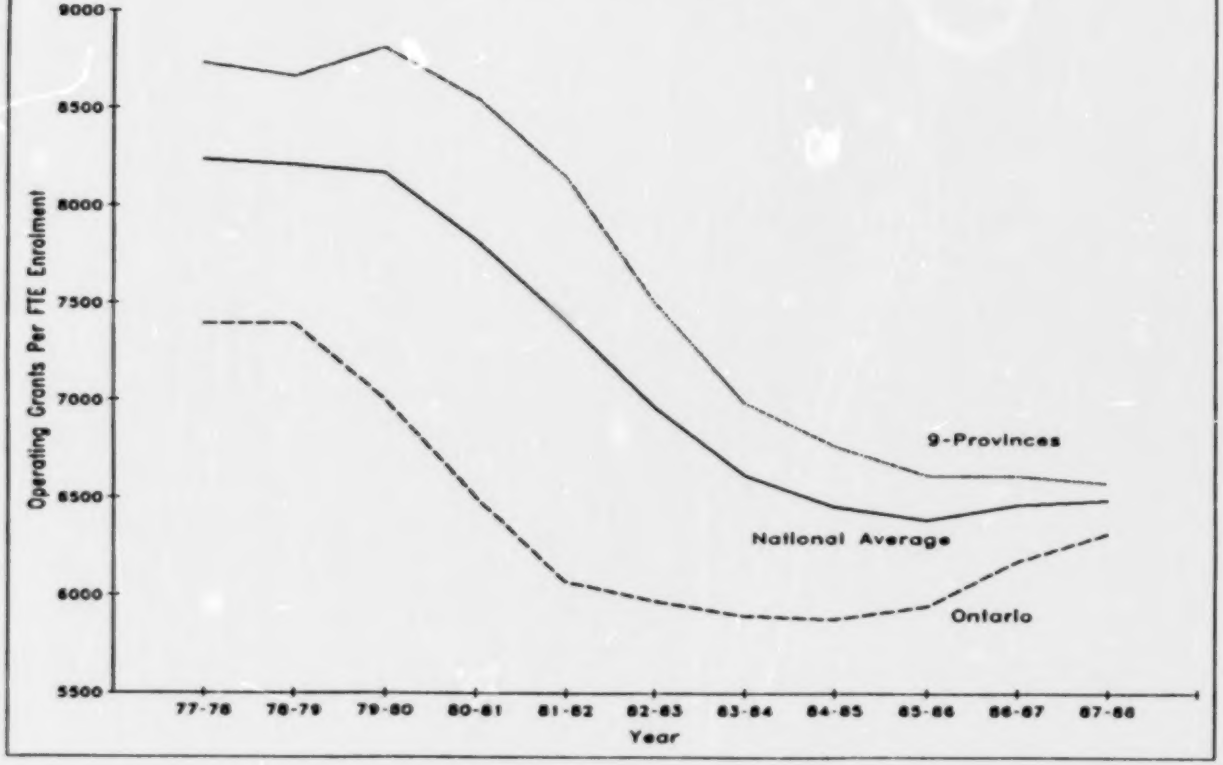


Table 5

Interprovincial Comparisons of Operating Grants to Universities

Per FTE Student 1977-78 to 1987-88

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86e	1986-87e	1987-88e
British Columbia	$4,419 (4)	$4,915 (3)	$5,212 (4)	$5,538 (4)	$6,229 (2)	$6,205 (3)	$5,886 (4)	$5,865 (4)	$5,653 (6)	$5,873 (7)	$6,193 (8)
Alberta	4,797 (1)	5,340 (2)	5,815 (2)	6,284 (1)	6,812 (1)	7,328 (1)	7,182 (2)	7,089 (1)	7,039 (1)	7,154 (1)	6,821 (2)
Saskatchewan	4,108 (5)	4,616 (5)	5,098 (5)	5,304 (5)	5,619 (4)	6,149 (4)	6,075 (3)	6,237 (3)	6,861 (2)	6,802 (3)	6,500 (5)
Manitoba	3,874 (7)	4,124 (7)	4,771 (6)	4,499 (7)	5,062 (6)	5,362 (6)	5,582 (6)	5,705 (6)	5,887 (5)	6,237 (5)	6,625 (4)
Quebec	4,449 (3)	4,657 (4)	5,299 (3)	5,935 (2)	6,176 (3)	5,915 (5)	5,713 (5)	5,729 (5)	5,934 (4)	6,261 (4)	6,709 (3)
New Brunswick	3,905 (6)	4,364 (6)	4,762 (7)	4,929 (6)	4,998 (7)	5,270 (7)	5,175 (7)	5,495 (7)	5,618 (7)	5,840 (8)	6,212 (7)
Nova Scotia	3,497 (9)	3,819 (9)	4,074(10)	4,379 (9)	4,908 (8)	5,079 (8)	5,154 (8)	5,360 (8)	5,469 (8)	5,618 (9)	5,950 (9)
Prince Edward Island	3,030(10)	3,544(10)	4,246 (8)	4,441 (8)	4,720 (9)	5,023 (9)	5,089 (9)	5,283 (9)	5,319(10)	5,384(10)	5,276(10)
Newfoundland	4,625 (2)	5,485 (1)	5,994 (1)	5,684 (3)	5,847 (4)	6,912 (2)	7,788 (1)	6,994 (2)	6,696 (3)	7,037 (2)	7,044 (1)
9 Provinces	4,332 -	4,688 -	5,213 -	5,623 -	6,007 -	6,058 -	5,935 -	5,961	6,073 -	6,325 -	6,573
Ontario (Rank)	**3,669 (8)**	**4,002 (8)**	**4,140 (9)**	**4,273(10)**	**4,475(10)**	**4,821(10)**	**5,000(10)**	**5,180(10)**	**5,452 (9)**	**5,902 (6)**	**6,315 (6)**
Canada	$4,087 -	$4,444 -	$4,828 -	$5,141 -	$5,461 -	$5,620 -	$5,610 -	$5,690 -	$5,862 -	$6,183 -	$6,486

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons
November 1987, for actual data.
COU Research Division for estimates.

Table 6

Provincial Operating Grants for Universities

Per $1,000 of Provincial Personal Income

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86e	Rank 1985-86
British Columbia	$ 10.45	$ 10.31	$ 9.68	$ 9.17	$ 9.09	$ 8.95	$ 8.43	$ 7.76	$ 6.67	(10)
Alberta	13.97	13.10	11.87	10.90	10.26	11.04	11.26	11.34	10.56	(6)
Saskatchewan	12.09	11.83	11.30	10.76	9.16	10.05	10.23	10.26	10.23	(7)
Manitoba	13.00	11.79	12.12	11.13	10.49	11.14	11.75	10.86	10.14	(8)
Quebec	13.87	14.12	14.44	14.87	13.98	12.95	12.49	12.17	11.76	(4)
New Brunswick	14.12	13.90	13.41	13.31	13.01	13.25	12.78	12.54	11.80	(3)
Nova Scotia	15.76	15.14	14.24	14.39	14.26	14.24	14.15	13.79	13.01	(1)
Prince Edward Island	12.76	11.68	12.22	11.38	11.23	11.49	10.83	11.01	10.69	(5)
Newfoundland	15.26	15.24	15.21	14.85	14.33	14.16	13.77	13.24	12.87	(2)
9 Provinces	13.18	12.99	12.72	12.52	11.83	11.63	11.40	11.09	10.47	-
Ontario (Rank)	**10.01 (10)**	**9.47 (10)**	**8.87 (10)**	**8.44 (10)**	**7.94 (10)**	**8.18 (10)**	**8.05 (10)**	**7.89 (9)**	**7.44 -**	**- (9)**
Canada	11.93	11.61	11.22	10.95	10.35	10.31	10.10	9.83	9.28	-

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons, November 1987, for actual data. COU Research Division for estimates.

Table 7

Interprovincial Comparisons of University Financing 1984-85

Indicators	Ontario	Rank	Average Of Rest Of Canada	Additional Funding Required To Equal Rest Of Canada	
				Total Required ($ millions)	Total Per Student $
1) GRANTS PER STUDENT	$ 5,180	(10)	$ 5,961	$ 168.9	$ 782
2) GRANTS PER CAPITA	$ 124	(8)	$ 150	$ 236.8	$ 1,096
3) GRANTS + STUDENT AID PER CAPITA	$ 131	(8)	$ 162	$ 283.9	$ 1,314
4) GRANTS + FEES PER STUDENT	$ 6,574	(7)	$ 6,762	$ 40.7	189
5) TOTAL OPERATING INCOME PER STUDENT	$ 6,827	(7)	$ 7,264	$ 94.5	437
6) GRANTS + STUDENT AID AS A % OF GROSS GENERAL EXPENDITURE	4.18%	(2)	3.79%	$-110.1	-510
7) GRANTS PER $1,000 OF PERSONAL INCOME	$ 7.89	(9)	$ 11.09	$ 453.5	$ 2,099
8) OPERATING EXPENDITURES AS A % OF GROSS DOMESTIC PRODUCT	0.88%	(8)	1.12%	$ 402.6	$ 1,864

Source: Tripartite Committee on Interprovincial Comparisons, November 1987.

Table 8

Interprovincial Comparisons of Total Operating Expenses

Per Client

	HOSPITALS		SCHOOLS		UNIVERSITIES	
	Total Operating Expense Per Patient Day 1985-86		School Board Expenditures Per Student 1984		Total Operating Expenditures Per Student 1984-85	
	$	RANK	$	RANK	$	RANK
British Columbia	249.12	(9)	3,956	(6)	7,097	(5)
Alberta	311.76	(5)	4,249	(2)	8,849	(1)
Saskatchewan	266.16	(7)	4,065	(4)	7,839	(3)
Manitoba	357.31	(2)	3,994	(5)	6,893	(7)
Ontario	334.23	(4)	4,091	(3)	6,801	(9)
Quebec	249.97	(8)	5,024	(1)	6,914	(6)
New Brunswick	275.00	(6)	3,344	(8)	6,884	(8)
P.E.I.	248.25	(10)	2,985	(9)	6,152	(10)
Nova Scotia	368.42	(1)	3,392	(7)	7,398	(4)
Newfoundland	347.25	(3)	2,957	(10)	8,283	(2)

SOURCE: Statistics Canada, Hospital Statistics - Preliminary Annual Report.
Statistics Canada, Financial Statistics of Education.
Tripartite Committee on Interprovincial Comparisons, November 1987.

*Preliminary

Figure 6
GROWTH OF GRANTS TO UNIVERSITIES RELATIVE TO GDP
1977-78 to 1986-87

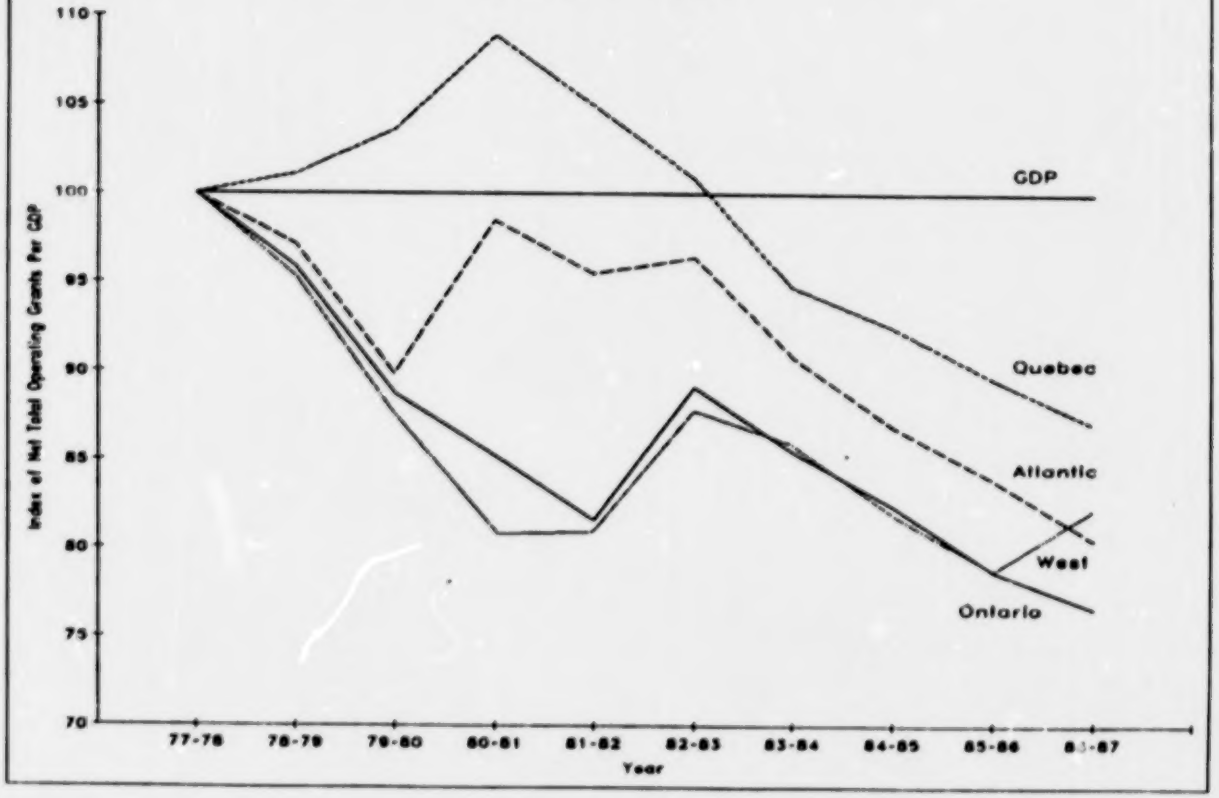


Table 9

GDP Elasticity By Province, 1977-78 to 1986-87

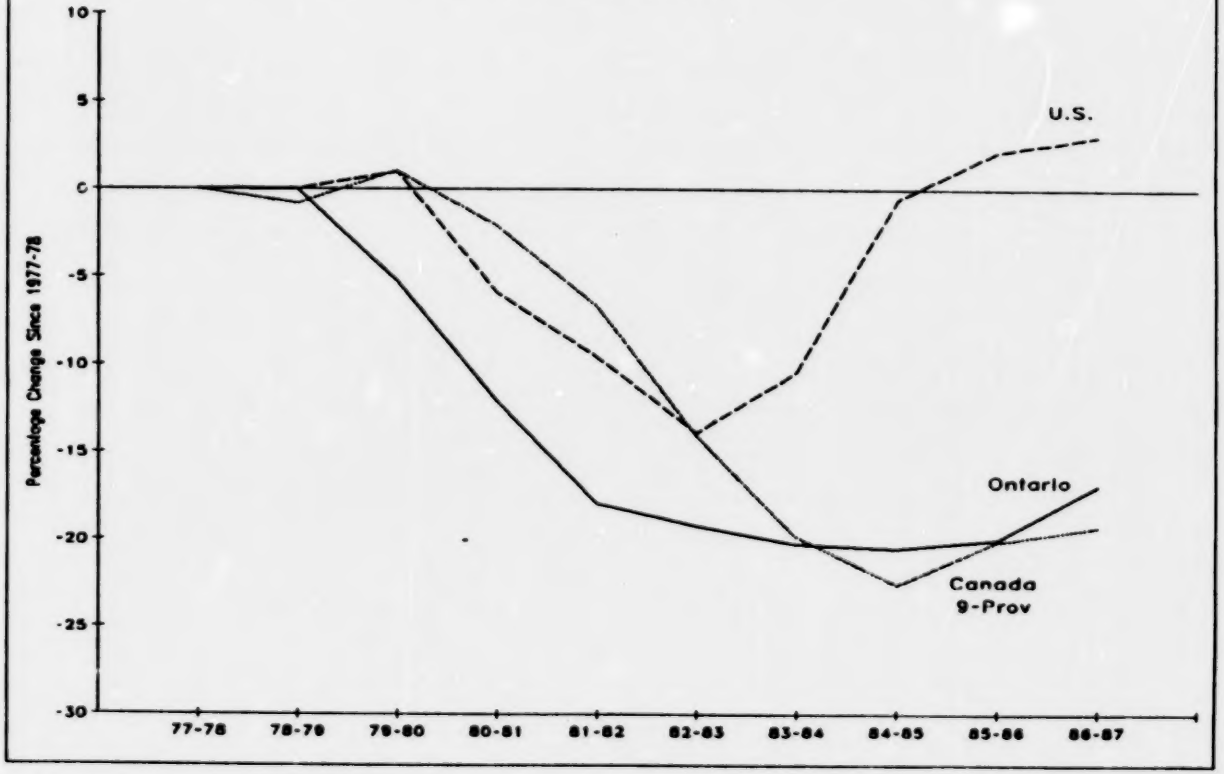
(Growth Rates of Provincial Operating Grants to Universities as a Ratio of GDP Growth)

	1977-78 to 1981-82	1981-82 to 1986-87	1977-78 to 1986-87	Rank
British Columbia	0.732	0.012	0.426	(10)
Alberta	0.496	1.800	0.853	(2)
Saskatchewan	0.532	2.531	0.983	(1)
Manitoba	0.526	0.762	0.657	(6)
Quebec	1.133	0.506	0.774	(3)
New Brunswick	0.913	0.564	0.674	(5)
Nova Scotia	0.940	0.511	0.644	(7)
Prince Edward Island	0.621	0.651	0.638	(8)
Newfoundland	0.773	0.703	0.734	(4)
9 - Provinces	0.790	0.661	0.728	--
Ontario	0.500	0.676	0.606	(9)
Canada	0.713	0.653	0.681	--

Note: In this table, "elasticity" refers to the growth of operating grants to universities relative to the growth of the economy. The table demonstrates that as the economy, stated in terms of Gross Domestic Product, expands or contracts, then operating grants to universities will expand or contract at a ratio greater or lesser than 1.00. That is, if provincial grants to universities are increasing at a faster rate than the GDP, this table will reflect elasticities greater than 1.00.

Sources: Statistics Canada
Tripartite Committee on Interprovincial Comparisons

Figure 7
GROWTH IN STATE & PROVINCIAL GRANTS PER FTE ENROLMENT
1977-78 to 1986-87
(Constant Dollars)



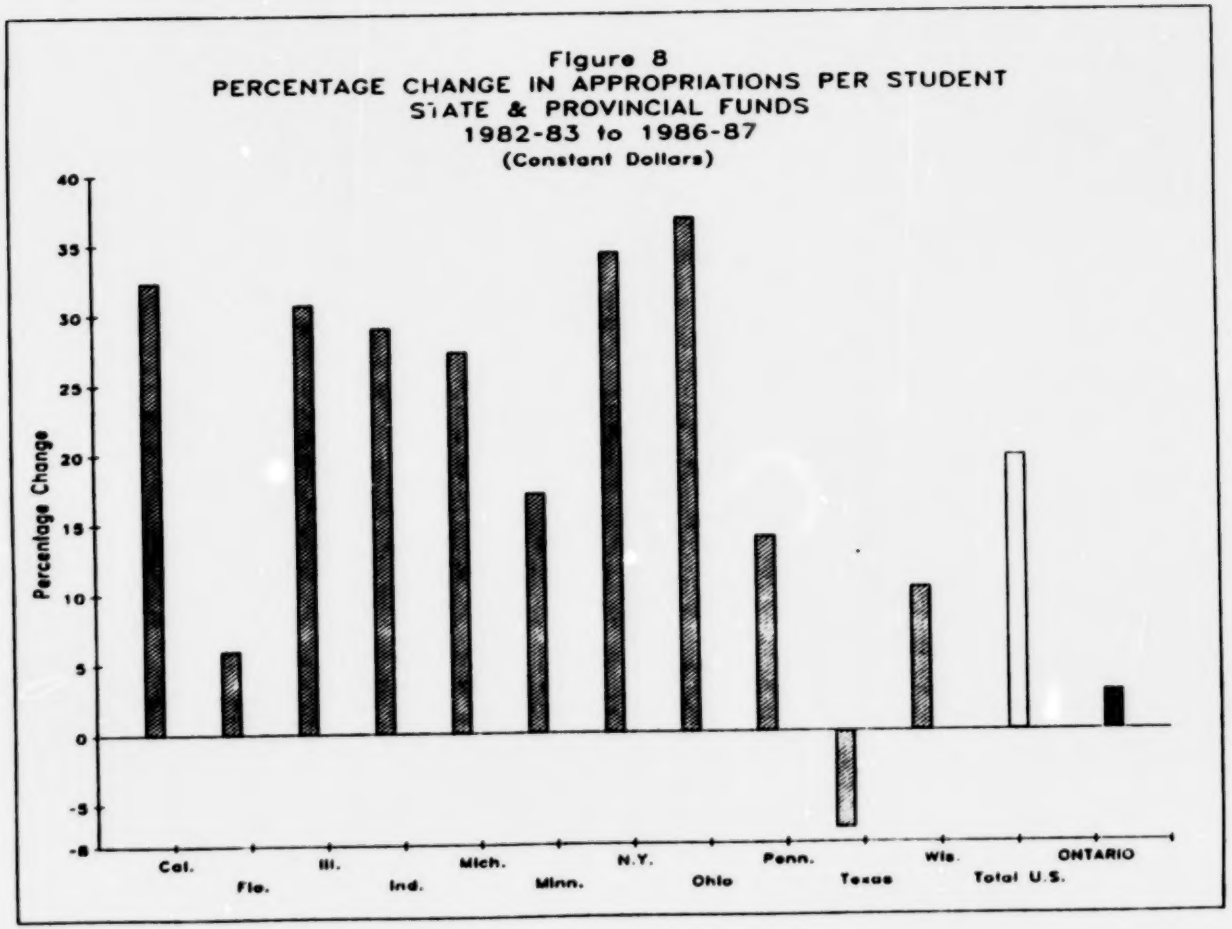


Figure 8
PERCENTAGE CHANGE IN APPROPRIATIONS PER STUDENT
STATE & PROVINCIAL FUNDS
1982-83 to 1986-87
(Constant Dollars)
Percentage Change
40
35
30
25
20
15
10
5
0
-5
-8
Cal.
Fla.
Ill.
Ind.
Mich.
Minn.
N.Y.
Ohio
Penn.
Texas
Wis.
Total U.S.
ONTARIO

Table 10

STATE/LOCAL AND PROVINCIAL/LOCAL EXPENDITURES

PER CAPITA ON HIGHER EDUCATION, 1983 - 84

($U.S. per capita)

Canada		United States	
British Columbia	$173.65	California	$247.49
Alberta	266.55	Florida	140.63
Saskatchewan	104.40	Illinois	178.64
Manitoba	152.00	Indiana	211.44
Ontario	152.76	Michigan	241.19
Quebec	211.46	Minnesota	248.05
New Brunswick	164.99	New York	167.04
P.E.I.	129.45	Ohio	185.27
Nova Scotia	137.64	Pennsylvania	100.98
Newfoundland	149.85	Texas	236.35
		Wisconsin	300.10
10 provinces	178.60	Total United States	202.45

Source: Statistics Canada, Consolidated Government Financing, 68-202, December 1987.
National Center for Higher Education Management Studies, Higher Education Financing in Fifty States, Interstate Comparisons, Fiscal Year 1984, August 1986.

Figure 9
REVENUE PER FULL-TIME ENROLMENT AT
ONTARIO, U.S. PUBLIC AND U.S. PRIVATE DOCTORAL INSTITUTIONS
(U.S. $ 1985-86)

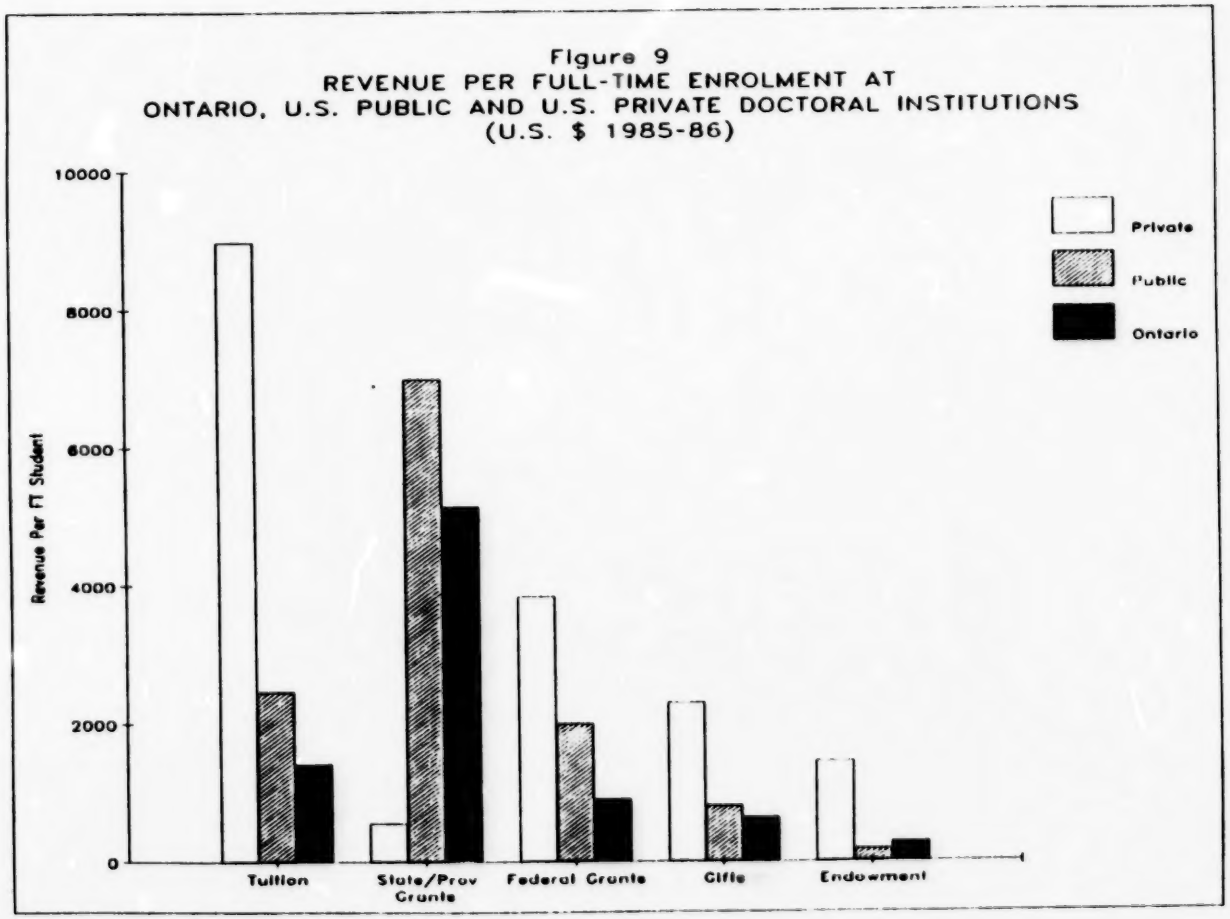


Table 11

Revenue Per Full-time Enrolment At

Doctoral Level Universities, 1985-86

(SU.S.)

	United States		
	Private	Public	Ontario
Tuition & Fees Per F.T. Student	$8,984	$2,465	$1,428
State/Provincial Appropriations Per F.T. Student	561	7,006	5,164
Federal Grants Per F.T. Student	3,852	2,009	917
Gifts Per F.T. Student	2,315	825	656
Endowment Income Per F.T. Student	1,467	187	295

Source: National Center for Higher Education Management Studies, Financial Statistics.
Council of Finance Officers - Universities of Ontario, Financial Report of Ontario Universities 1985-86.

Table 12

Percentage of Universities' General Operating Income, 1986-87

	Provincial Government Grants		Tuition Fees Credit Courses		Other Operating Income		Total Operating Income
	%	Rank	%	Rank	%	Rank	%
British Columbia	79.9	(7)	15.6	(5)	4.5	(6)	100.0
Alberta	85.8	(2)	10.1	(9)	4.1	(8)	100.0
Saskatchewan	80.2	(6)	13.9	(6)	5.9	(1)	100.0
Manitoba	82.3	(3)	13.4	(7)	4.3	(7)	100.0
Quebec	88.1	(1)	6.3	(10)	5.6	(3)	100.0
New Brunswick	76.7	(8)	20.1	(1)	3.2	(9)	100.0
Prince Edward Island	82.3	(5)	16.2	(4)	1.5	(10)	100.0
Nova Scotia	76.3	(10)	19.0	(2)	4.7	(4)	100.0
Newfoundland	82.3	(4)	13.1	(8)	4.6	(5)	100.0
9 Provinces	84.0	-	11.1	-	4.9	-	100.0
Ontario	76.5	(9)	17.6	(3)	5.9	(2)	100.0
Canada	81.1	-	13.7	-	5.2	-	100.0

Source: Canadian Association of University Business Officers, Financial Statistics of Universities and Colleges 1986-87

Table 13

Percentage of Universities' Total Income Excluding Ancillary Enterprises, 1986-87

	Provincial Government Grants		Total Fees		Other Income		Total Income
	%	Rank	%	Rank	%	Rank	%
British Columbia	63.9	(7)	13.3	(4)	22.8	(4)	100.0
Alberta	74.6	(3)	8.2	(8)	17.1	(7)	100.0
Saskatchewan	71.7	(4)	10.7	(7)	17.6	(8)	100.0
Manitoba	68.1	(6)	11.2	(6)	20.8	(5)	100.0
Quebec	75.3	(2)	6.8	(9)	17.9	(6)	100.0
New Brunswick	63.4	(9)	16.5	(1)	20.1	(2)	100.0
Prince Edward Island	92.3	(1)	5.7	(10)	2.1	(10)	100.0
Nova Scotia	56.8	(10)	16.3	(2)	26.9	(1)	100.0
Newfoundland	71.1	(5)	11.6	(5)	17.3	(9)	100.0
9 Provinces	71.2		9.7		19.1		100.0
Ontario	63.5	(8)	15.2	(3)	21.3	(3)	100.0
Canada	68.3		11.8		19.9		100.0

Source: Canadian Association of University Business Officers, Financial Statistics of Universities and Colleges 1986-87

Table 14

Costs of Sponsored Research and the Operating Base

1977-78 to 1986-87

	Sponsored Research Expenses		Operating Expenses	
	Constant Dollars (1977-78)	Percentage Growth from 1977-78	Constant Dollars (1977-78)	Percentage Growth from 1977-78
1977-78	$125,627	-	$868,333	-
1978-79	132,467	+5.4%	836,029	-3.7%
1979-80	136,324	+8.5	808,743	-6.9
1980-81	141,121	+12.3	788,029	-9.2
1981-82	154,541	+23.0	789,501	-9.1
1982-83	170,811	+36.0	816,350	-6.0
1983-84	173,837	+38.4	845,071	-2.7
1984-85	185,749	+47.9	856,170	-1.4
1985-86	188,484	+50.0	877,249	+1.0
1986-87	187,276	+49.1	890,012	+2.5

Source: COFO-UO, Financial Report of Ontario Universities, various years.

Table 15

Salaries and Wages, Ontario Universities, 1977-78 to 1986-87

(1977-78 $ constant)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Academic Ranks										
Constant Dollars ($000)	$340,465	$328,527	$317,209	$309,829	$309,579	$320,583	$325,807	$328,848	$334,356	$342,122
Constant Dollars Per FTE Enrolment	100.0	96.3	92.4	87.2	83.1	81.5	80.3	80.6	82.6	84.2
Other Instruction and Research										
Constant Dollars ($000)	$38,248	$35,519	$34,742	$34,451	$33,448	$33,441	$33,542	$33,806	$34,892	35,109
Constant Dollars Per FTE Enrolment	100.0	92.7	90.1	86.3	79.9	75.7	73.6	73.7	76.7	76.9
Non-Academic Staff										
Constant Dollars ($000)	$250,779	$240,317	$226,186	$218,856	$219,392	$226,513	$236,889	$240,495	$248,165	$250,697
Constant Dollars Per FTE Enrolment	100.0	95.7	89.4	83.7	80.0	78.2	79.2	80.0	83.2	83.7
Total Salaries and Wages										
Constant Dollars ($000)	$629,492	$604,363	$578,137	$563,136	$562,419	$580,537	$596,238	$603,150	$617,413	$627,928
Constant Dollars Per FTE Enrolment	100.0	95.9	91.1	85.7	81.7	79.9	79.4	79.9	82.5	83.6

Source: COFO-UO, Financial Report of Ontario Universities, various years.

Table 16

Comparison of Benefit Costs

1977-78 to 1987-88

($000 Constant 1977-78 Dollars)

(excluding OCA, Algoma, Nipissing, Hearst)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88r
Statutory Benefits											
O.H.I.P.	5,821	6,098	5,423	4,646	4,736	5,368	5,316	5,469	5,355	5,265	5,218
Canada Pension	5,906	5,768	5,644	5,578	5,549	5,864	5,987	6,252	6,608	7,212	7,388
Worker's Compensation	948	846	826	776	927	1,058	1,102	1,288	1,504	1,683	1,782
Unemployment Insurance	7,250	6,605	5,504	6,356	7,649	8,831	11,307	11,843	12,431	12,770	13,276
Total Statutory Benefits	19,925	19,318	17,397	17,356	18,861	21,120	23,712	24,851	25,898	26,930	27,664
Non-Statutory Benefits											
Pension											
- Current Service	36,003	35,681	34,838	33,365	33,946	36,010	37,169	36,996	38,022	36,634	38,897
- Experience Deficiency	1,513	1,660	415	138	262	260	188	174	(103)	(102)	(108)
- Past Service Liability	3,466	3,251	2,038	654	99	327	410	518	0	47	15
Group Life Insurance	3,837	3,463	3,294	2,981	2,622	2,811	2,897	2,720	2,830	2,799	3,009
Long Term Disability	1,805	1,874	1,843	2,292	2,179	2,439	2,709	2,654	2,758	2,762	2,922
Dental Insurance	1,222	1,939	1,925	2,245	2,920	3,310	3,437	3,757	4,287	4,714	5,180
Extended Health Care	1,079	941	898	1,253	1,396	1,751	2,090	2,399	2,791	3,039	3,364
Tuition Remission	479	879	1,420	1,437	1,770	1,802	1,974	2,299	2,342	2,301	2,287
Other	485	434	518	495	654	618	435	244	680	(1,700)	692
Total Non-Statutory Benefits	49,890	50,123	47,189	44,860	45,848	49,327	51,311	51,761	53,608	50,495	56,257
Total Benefits	69,815	69,441	64,586	62,216	64,709	70,447	75,022	76,612	79,506	77,425	83,922

Figure 10
ONTARIO GOVERNMENT AND UNIVERSITIES'
CONTRIBUTORY BENEFITS AS A PERCENTAGE OF SALARIES
1977-78 to 1986-87

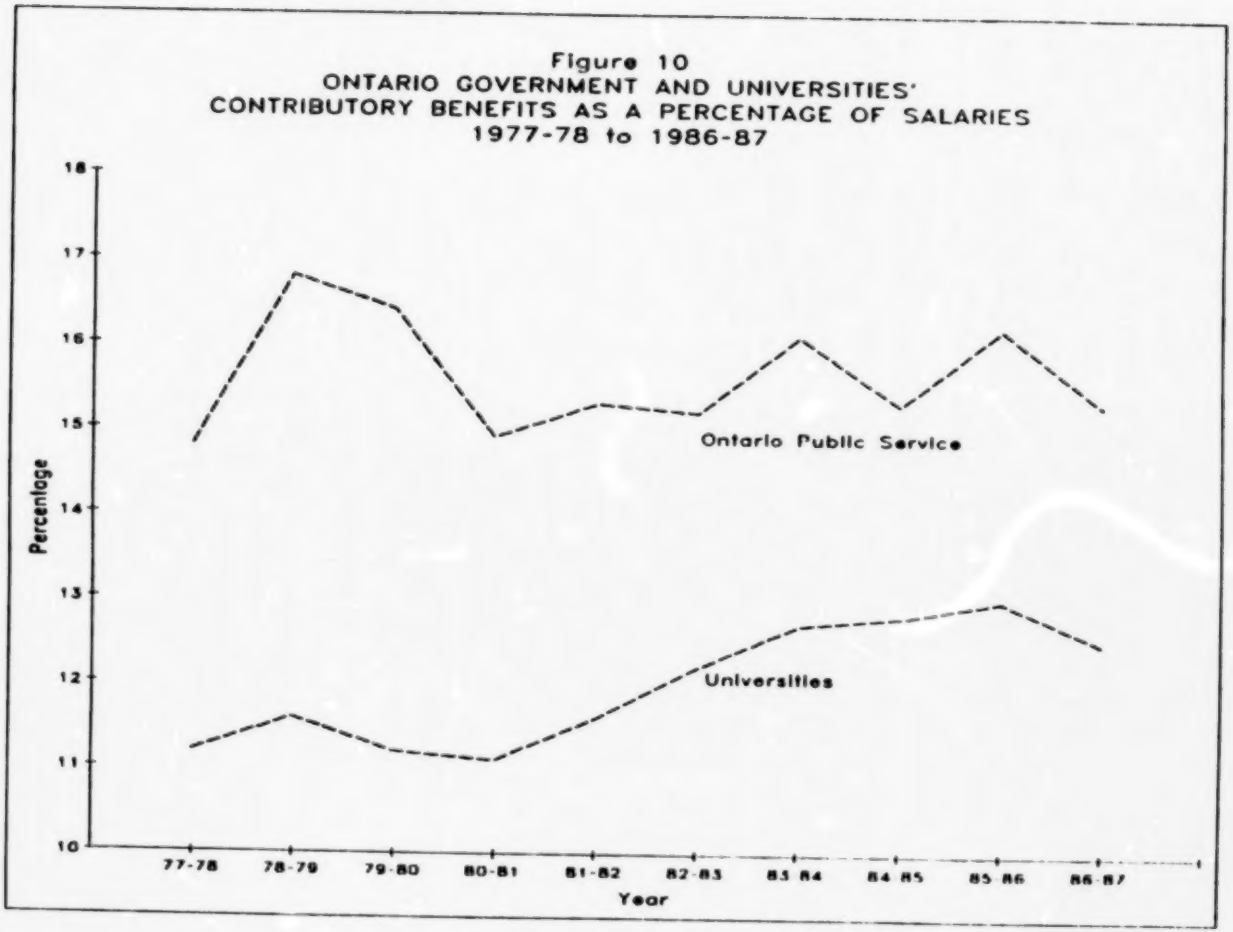


Table 17

Ontario University Non Salary Price Index

(1986 revision: 1980-81 = 100)

Year	OUNSPI	CPI	OUNSPI Annual % Increase	CPI Annual % Increase
Actual				
1970-71	37.8	44.7	-	-
1971-72	39.5	46.4	4.4	3.9
1972-73	40.8	48.8	3.4	5.1
1973-74	45.4	53.1	11.2	8.9
1974-75	52.9	59.2	16.6	11.4
1975-76	58.6	65.1	10.9	10.0
1976-77	63.9	69.5	8.9	6.8
1977-78	71.8	75.5	12.3	8.6
1978-79	78.8	82.4	9.9	9.1
1979-80	89.1	90.0	13.1	9.2
1980-81	100.0	100.0	12.2	11.2
1981-82	113.9	112.2	13.9	12.2
1982-83	125.4	122.7	10.0	9.4
1983-84	131.0	129.0	4.5	5.1
1984-85	139.4	134.0	6.4	3.9
1985-86	146.9	139.5	5.4	4.1
1986-87	150.2	145.3	2.2	4.2
Estimated				
1987-88	158.9	152.0	5.4	4.6
1988-89	168.3	159.1	5.5	4.7
1989-90	178.5	166.8	5.7	4.8
1990-91	188.4	174.1	5.2	4.4
1991-92	197.4	180.7	4.5	3.8

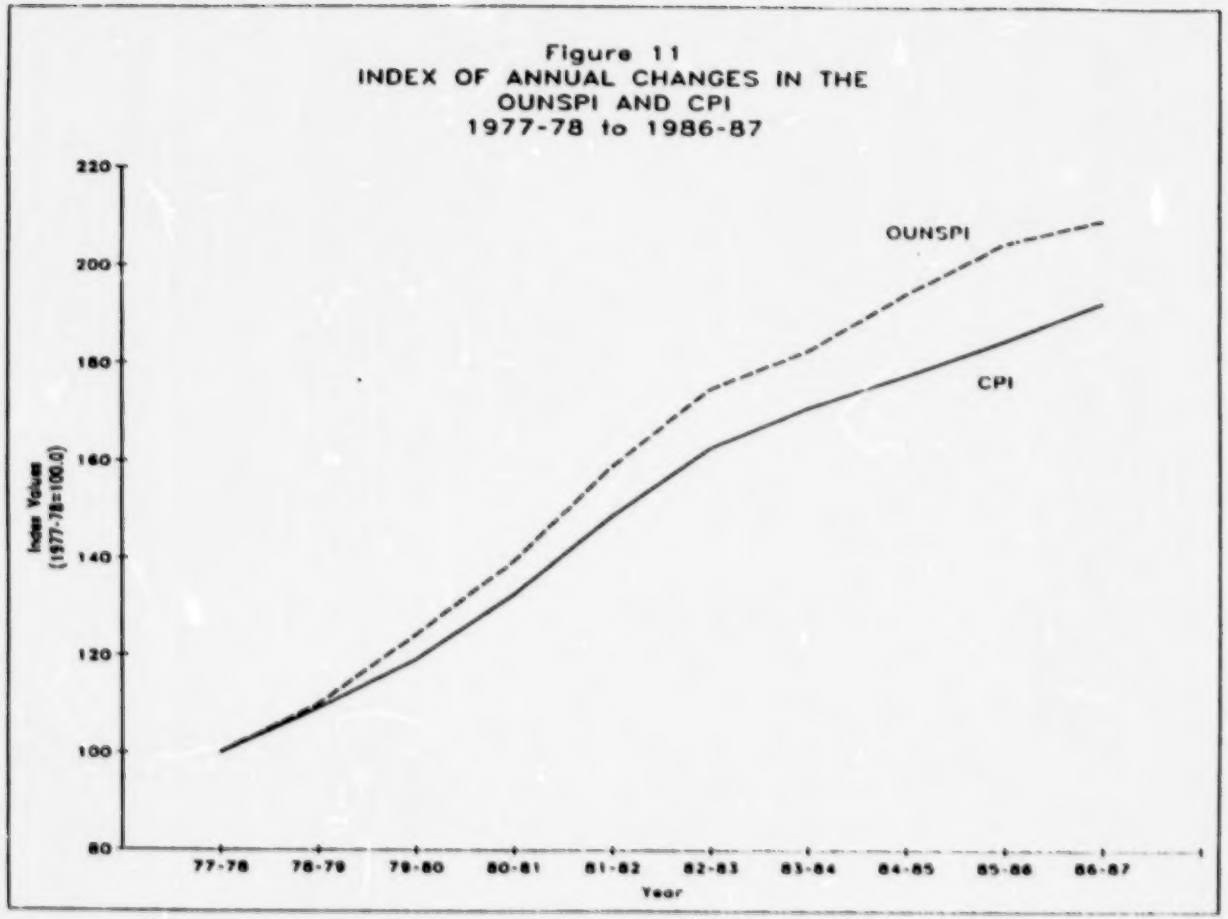


Figure 11
INDEX OF ANNUAL CHANGES IN THE
OUNSPI AND CPI
1977-78 to 1986-87
220
200
180
160
140
120
100
80
Index Values
(1977-78=100.0)
OUNSPI
CPI
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
Year

Table 18

Projected Annual Percentage Increases in the Consumer Price Index

	1987	1988	1989	1990	1991	1992
Economic Council of Canada[1]	4.3	5.2	5.9	5.2	3.7	-
Federal Department of Finance[2]	4.4	4.0	3.9	3.4	3.4	3.4
Ontario Treasurer[3]	5.1	4.7	5.0	5.0	5.0	-
	1987-88	1988-89	1989-90	1990-91	1991-92	
Average of Projections Adjusted to University Fiscal Year (May 1 - April 30)	4.6	4.7	4.8	4.4	3.8	

1. Economic Council of Canada, Reaching Outward (Base Case Projection), 1987.

2. Canada Department of Finance, February 1988, Budget, Medium-Term Economic Outlook 1990-93 average increase.

3. Ontario Ministry of Treasury and Economics, Economic Outlook and Fiscal Review, Ontario 1987, December 1987.

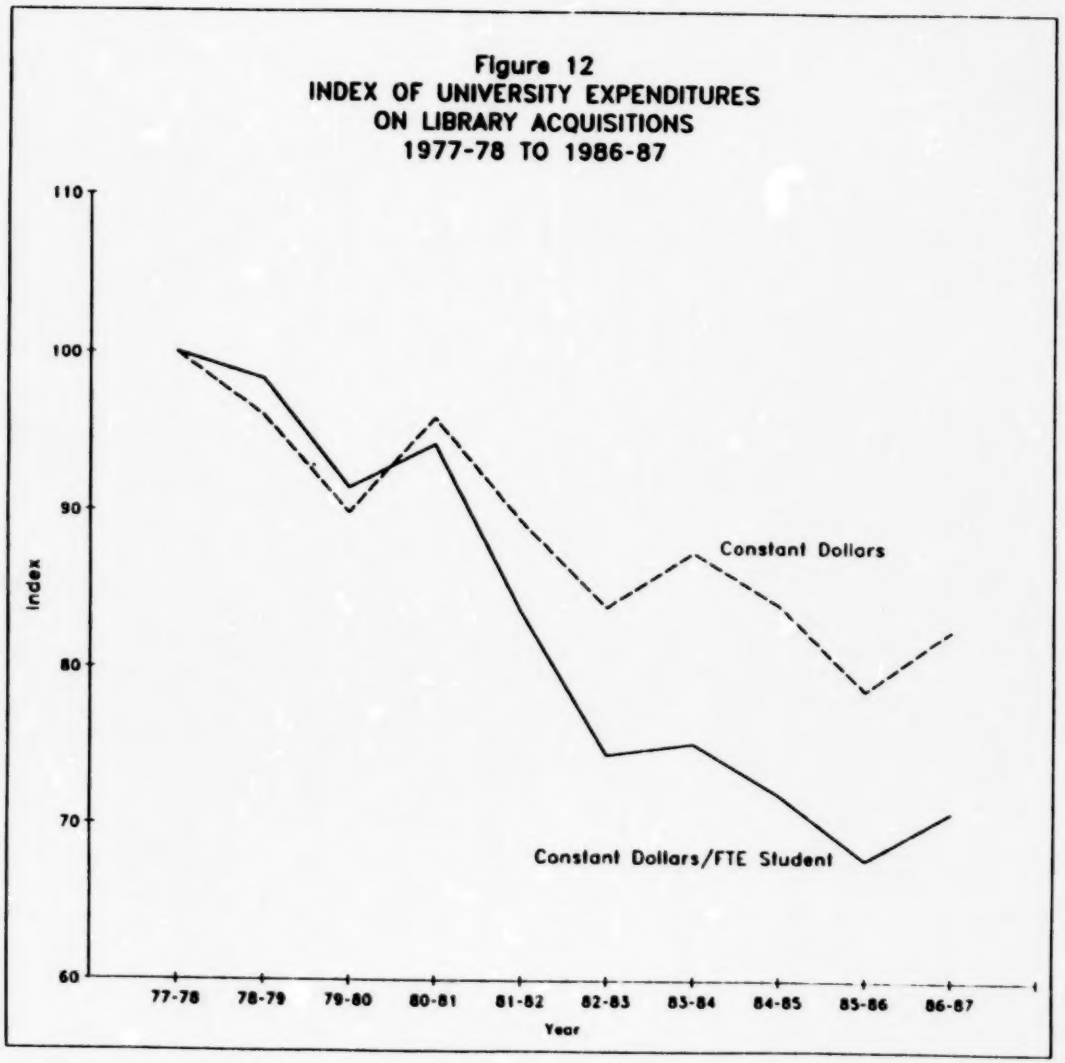


Figure 12
INDEX OF UNIVERSITY EXPENDITURES
ON LIBRARY ACQUISITIONS
1977-78 TO 1986-87
110
100
90
80
70
60
Index
Constant Dollars
Constant Dollars/FTE Student
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
Year

Table 19

Index of Expenditure on Library Acquisitions

	Acquisitions as % of Total Operating Expenses	Constant Dollars	Constant Dollars per FTE	Cost Index
1977-78	2.0	100.0	100.0	100.0
1978-79	2.1	96.0	98.3	115.4
1979-80	2.2	89.9	91.4	136.5
1980-81	2.3	95.9	94.2	148.0
1981-82	2.2	89.3	83.6	168.8
1982-83	2.1	83.9	74.5	198.1
1983-84	2.2	87.4	75.2	214.3
1984-85	2.2	84.1	72.0	236.7
1985-86	2.2	78.6	67.8	263.8
1986-87	2.2	82.5	70.9	274.3

Source: COFO-UO Financial Report of Ontario Universities, various years.
Bowker (U.S.) Hardcover Book and Periodical.
Price Indices converted for Canadian dollar fluctuations.

Figure 13
CAPITAL FUNDING FOR UNIVERSITIES, RYERSON AND OCA
IN ACTUAL & CONSTANT 87-88 DOLLARS
1964-65 to 1987-88

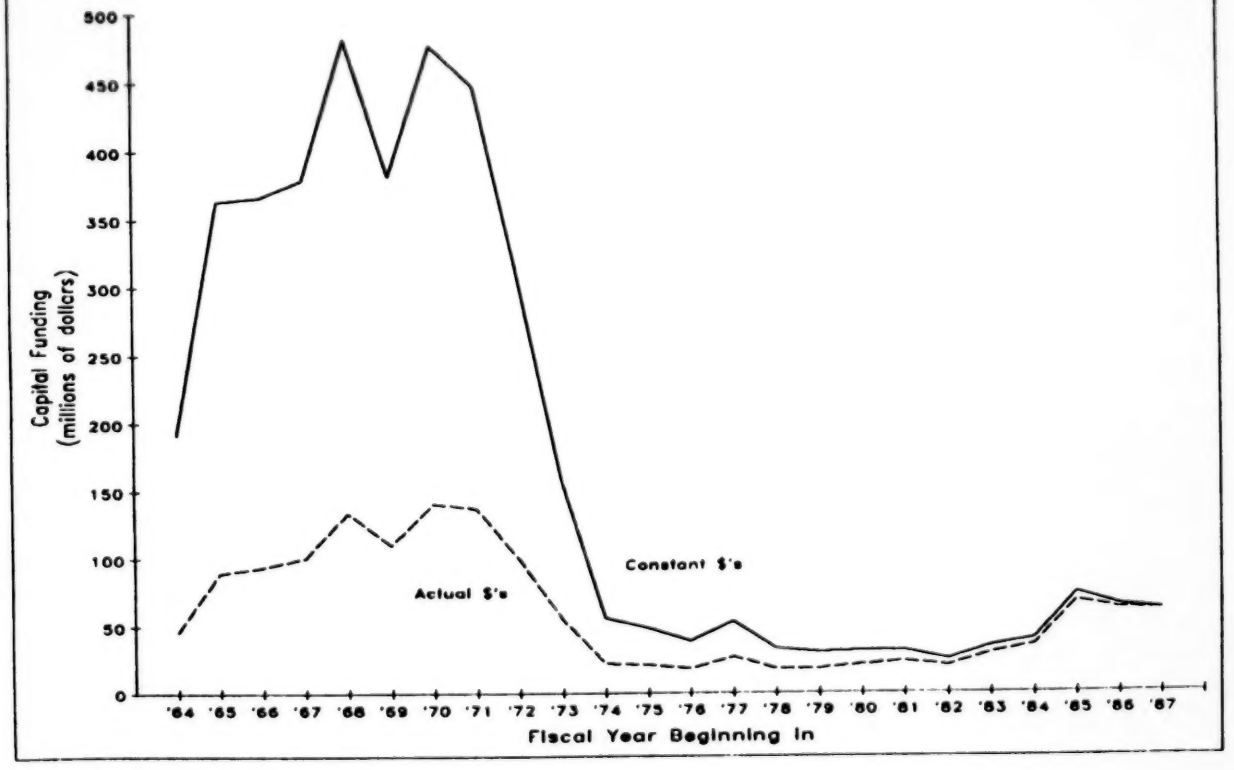


Table 20

Capital Funding for Universities, Ryerson, OCA
1964-65 to 1987-88

	Capital Funding ($000)	Constant 1987-88 dollars ($000)
1964-65	45,600.0	190,972.5
1965-66	89,239.0	362,947.7
1966-67	93,105.0	365,624.1
1967-68	99,995.0	377,468.2
1968-69	132,974.0	480,494.5
1969-70	109,253.0	380,525.7
1970-71	139,805.0	475,370.6
1971-72	136,047.0	445,522.6
1972-73	98,712.0	307,463.6
1973-74	54,492.0	155,984.6
1974-75	21,642.0	55,567.3
1975-76	20,593.2	48,082.4
1976-77	17,618.7	38,533.0
1977-78	26,089.6	52,524.8
1978-79	17,498.4	32,278.6
1979-80	17,740.5	29,961.7
1980-81	20,387.0	30,988.2
1981-82	22,891.7	31,011.9
1982-83	19,620.3	--,305.5
1983-84	28,960.0	34,123.4
1984-85	34,742.6	39,4C
1985-86	67,225.8	73,249.6
1986-87	61,217.2	64,040.0
1987-88	60,653.0	60,653.0

Table 21

Buildings, Land and Site Services
Total Expenses By Province

1986-87

	University Buildings, Land, and Site Services ($000)	Building Expenses Per Estimated FTE Enrolment $	Index	Rank
British Columbia	$ 16,100	$ 400.33	69.4	(8)
Alberta	95,710	1,951.16	338.1	(2)
Saskatchewan	22,746	981.16	170.0	(3)
Manitoba	10,755	450.27	78.0	(5)
Quebec	33,811	228.52	39.6	(10)
New Brunswick	7,540	461.32	79.9	(4)
P.E.I.	36,093	17,742.31	3,074.4	(1)
Nova Scotia	11,176	436.54	75.6	(6)
Newfoundland	5,286	434.24	75.2	(7)
9-provinces	239,217	702.65	121.8	-
Ontario	79,707	375.64	65.1	(9)
CANADA 10-provinces	$318,924	$ 577.09	100.0	-

Source: CAUBO
Statistics Canada

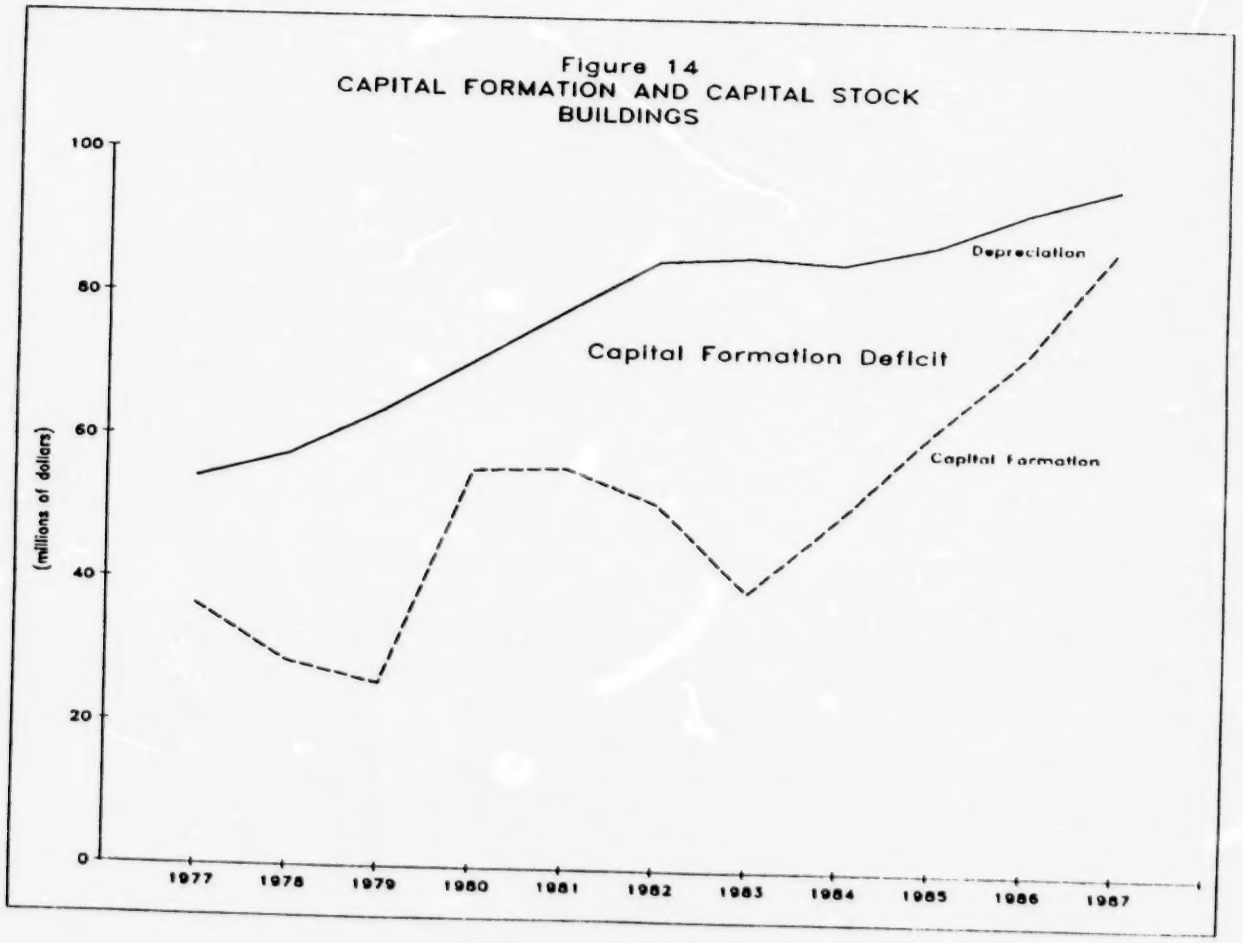


Figure 14
CAPITAL FORMATION AND CAPITAL STOCK
BUILDINGS
100
80
60
40
20
0
(millions of dollars)
Depreciation
Capital Formation Deficit
Capital Formation
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987

Table 22

Capital Formation and Capital Stock, Ontario Universities

(Smillions)

Years	Buildings				Equipment			
	Mid-Year Net Stock (Current Dollars)	Gross Fixed Capital Formation	Depreciation*	Net Fixed** Capital Formation	Mid-Year Net Stock (Current Dollars)	Gross Fixed Capital Formation	Depreciation*	Net Fixed** Capital Formation
1977	2,072.0	36.4	54.2	- 17.8	305.6	22.1	25.3	- 3.2
1978	2,153.2	28.5	57.5	- 29.0	336.4	24.2	29.3	- 5.1
1979	2,330.7	25.5	63.6	- 38.1	375.0	27.2	34.1	- 6.9
1980	2,547.1	55.7	70.7	- 15.0	413.0	36.5	39.2	- 2.7
1981	2,757.8	56.0	78.0	- 22.0	448.0	35.6	44.3	- 8.7
1982	2,947.4	51.3	85.0	- 33.7	489.4	41.6	50.4	- 8.8
1983	2,904.9	39.0	85.7	- 46.7	502.3	46.6	53.6	- 7.0
1984	2,814.6	49.7	85.0	- 35.3	535.7	71.4	58.5	12.9
1985	2,832.7	61.7	87.6	- 25.9	581.1	80.6	63.5	17.1
1986***	2,922.5	72.4	92.4	- 20.0	634.0	110.4	68.2	42.2
1987***	2,974.6	87.5	95.9	- 8.4	706.2	113.6	73.3	40.3

* Capital Consumption Allowances

** Net Fixed Capital Formation equals Gross Fixed Capital Formation minus Depreciation.

*** Estimates for the two most recent years are based respectively on preliminary and expected investment expenditures.

Source: Statistics Canada.

Figure 15
CAPITAL FORMATION AND CAPITAL STOCK
EQUIPMENT

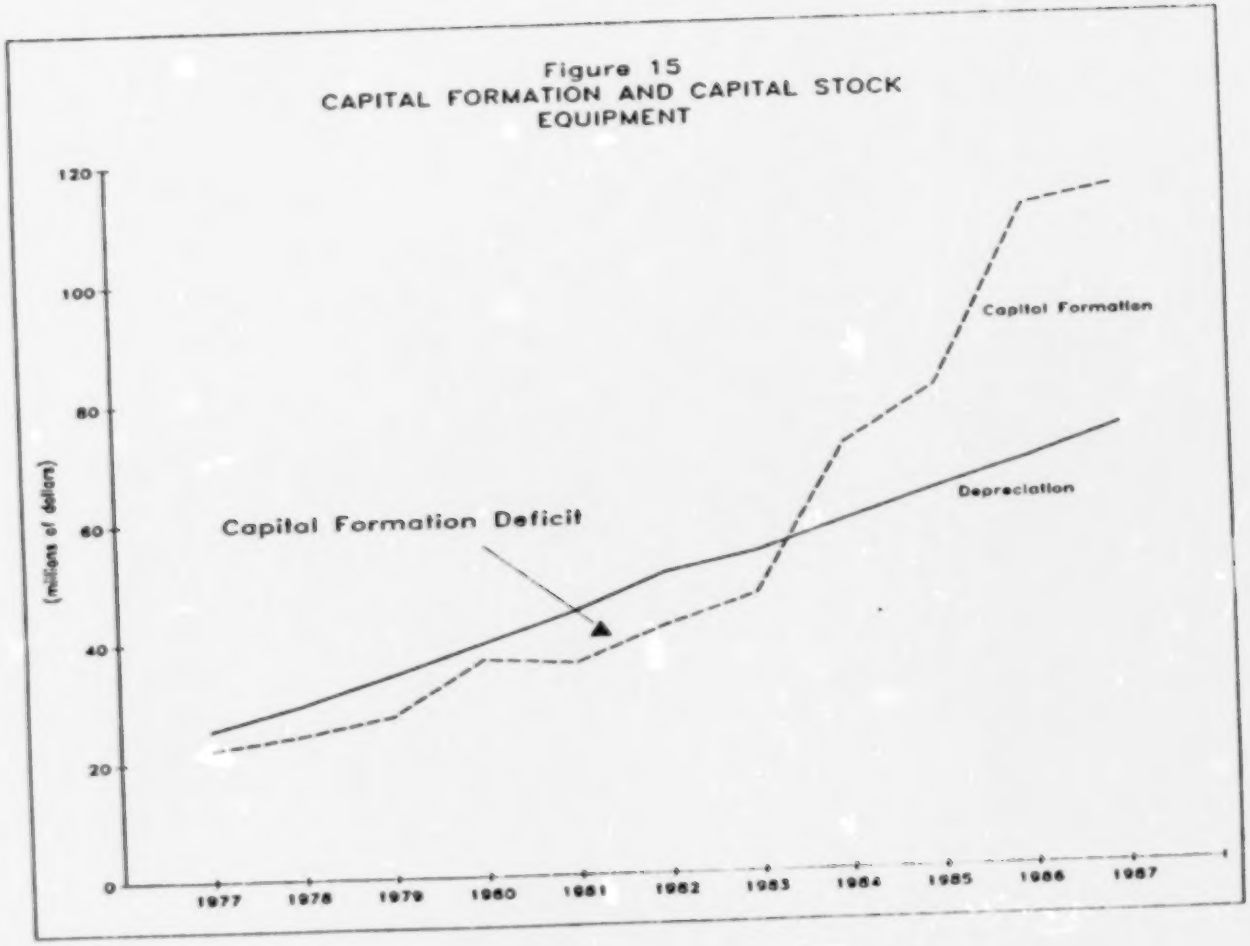


Table 23

Estimated Gross General Provincial Government Revenue Per Capita

and as a Percentage of Gross Domestic Product and Provincial Personal Income

1985-86

	Gross Domestic Product ($000,000's)	Gross General Revenue %	(Rank)	Provincial Personal Income ($000,000's)	Gross General Revenue %	(Rank)	Gross General Revenue Per Capita $	Index (Canada = 100.0)	(Rank)
British Columbia	54,103	19.3	(9)	46,778	22.4	(9)	$3,622	91.0	(8)
Alberta	61,968	23.1	(6)	39,707	36.0	(2)	6,053	152.0	(1)
Saskatchewan	17,297	22.6	(7)	14,475	27.0	(6)	3,838	96.4	(4)
Manitoba	17,993	21.7	(8)	15,890	24.6	(8)	3,651	91.7	(7)
Quebec	108,625	28.0	(4)	98,475	30.8	(5)	4,612	115.8	(2)
New Brunswick	8,823	31.2	(3)	8,575	32.1	(4)	3,825	96.1	(5)
Nova Scotia	11,631	25.3	(5)	11,282	26.1	(7)	3,345	84.0	(9)
Prince Edward Island	1,317	35.5	(2)	1,399	33.5	(3)	3,671	92.2	(6)
Newfoundland	6,236	37.2	(1)	6,131	37.8	(1)	3,990	100.2	(3)
9 Provinces Outside Ontario	287,993	24.8%	-	242,712	29.4%	-	4,400	110.5	-
Ontario	184,356	15.9	(10)	157,806	18.6	(10)	3,231	81.2	(10)
Canada	472,347	21.3%	-	400,518	25.2%	-	3,981	100.0	-

Source: Statistics Canada.

Table 24

Local/Provincial Government "Own Source" Revenue as a Percentage of Gross Domestic Product, 1983-84

	Gross Domestic Product ($ millions)	Local/Provincial "Own Source" Revenue ($ millions)	"Own Source" Revenue as % of GDP	RANK
British Columbia	47,238	9,963.1	21.1	(5)
Alberta	56,539	14,887.8	26.5	(1)
Saskatchewan	16,281	3,774.0	23.2	(3)
Manitoba	15,048	3,286.5	21.8	(4)
Quebec	90,432	23,772.2	26.3	(2)
New Brunswick	7,348	1,410.1	19.2	(9)
Nova Scotia	9,428	1,892.7	20.1	(8)
Prince Edward Island	1,198	245.7	20.5	(7)
Newfoundland	5,444	1,142.2	21.0	(6)
9 Provinces	248,956	60,474.3	24.3	
Ontario	151,650	27,649.7	18.2	(10)
Canada	400,606	88,124.0	22.0	

Source: Statistics Canada

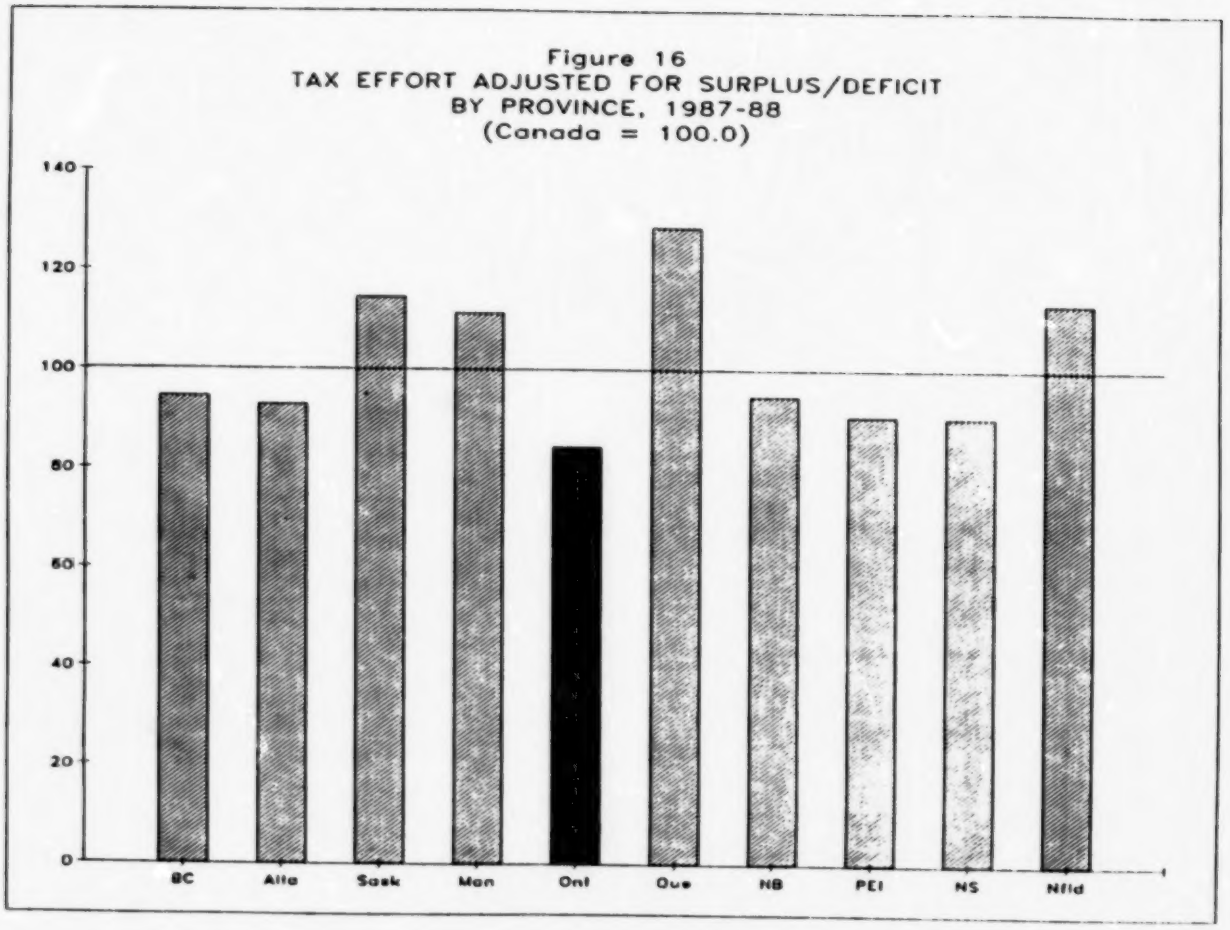


Figure 16
TAX EFFORT ADJUSTED FOR SURPLUS/DEFICIT
BY PROVINCE, 1987-88
(Canada = 100.0)
140
120
100
80
60
40
20
0
BC
Alta
Sask
Man
Ont
Que
NB
PEI
NS
Nfld

Table 25

Estimated Tax Capacity, Tax Revenue and Tax Effort

1987-88

	Estimated Tax Capacity Per Capita	Estimated Tax Revenue Per Capita	Estimated Tax Effort Per Capita	Estimated Tax Effort Adjusted for Surplus/Deficit
British Columbia	100.1	90.9	90.8	94.7
Alberta	143.9	126.6	88.0	93.0
Saskatchewan	93.1	91	98.7	114.7
Manitoba	87.0	97.5	112.0	111.5
Ontario	105.5	91.8	87.0	84.7
Quebec	87.8	118.9	135.5	128.8
New Brunswick	76.7	69.0	89.9	95.0
Prince Edward Island	71.6	67.2	93.8	91.0
Nova Scotia	81.4	65.1	80.0	90.7
Newfoundland	68.8	69.0	100.3	113.7
10 Provinces	100.0	100.0	100.0	100.0

Note: Tax capacity uses a representative tax system, consisting of the various taxes imposed by provincial governments, to reflect the resources which a government can tax to raise revenue for public purposes. Tax revenue is the relative amount per capita actually raised by provincial governments, (It excludes all federal transfers and local property taxes but includes provincial revenues from natural resources and an estimate of miscellaneous revenue not normally included in federal calculations in regard to equalization payments). Tax effort measures the extent to which a government is actually cultivating the resources available for taxation. Adjusting tax effort, for surpluses and deficits, treats borrowings (where there is a deficit) as a form of revenue and surpluses as a loss of revenues which would otherwise be available for spending.

Sources: Canada Department of Finance, Federal-Provincial Relations Division.
Statistics Canada.

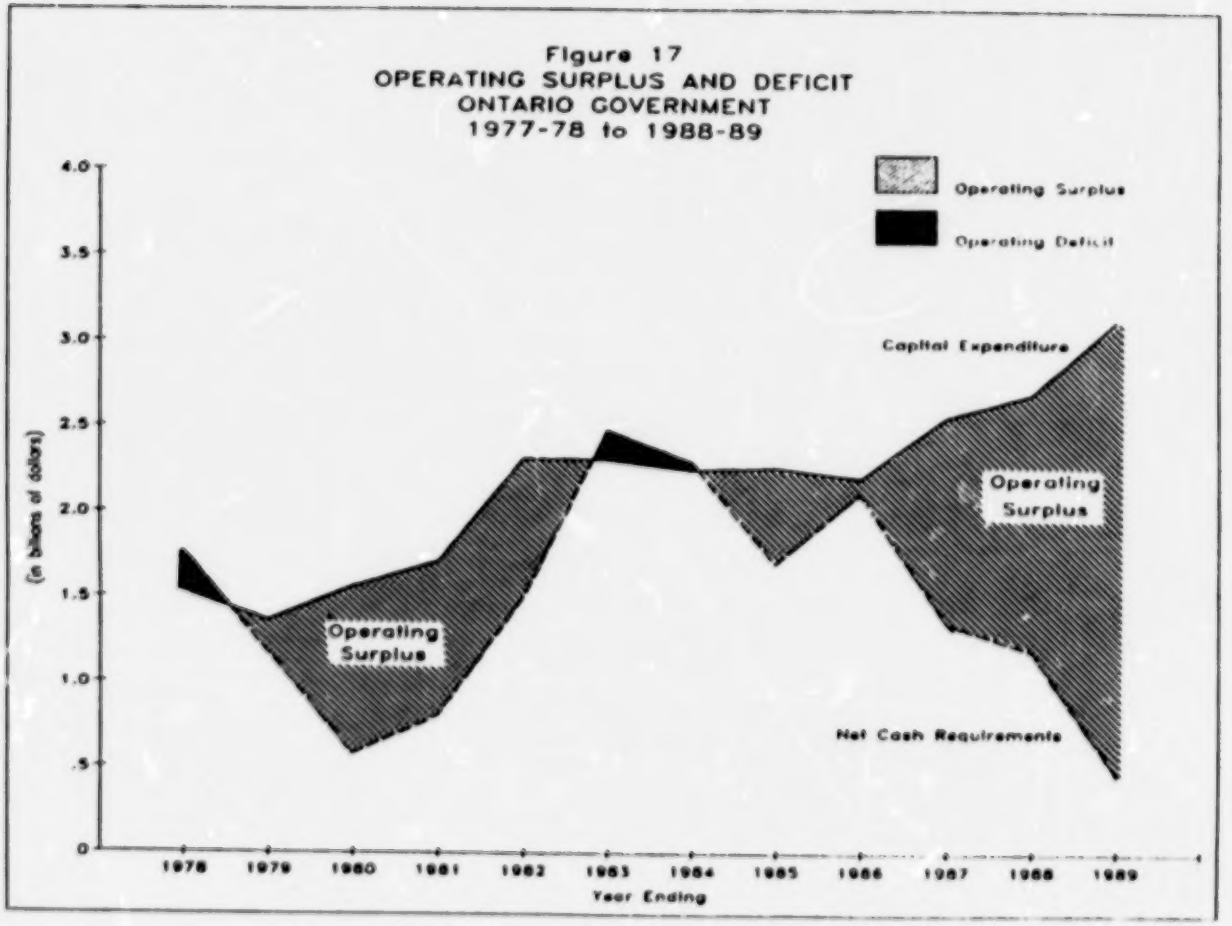


Figure 17
OPERATING SURPLUS AND DEFICIT
ONTARIO GOVERNMENT
1977-78 to 1988-89
Operating Surplus
Operating Deficit
Capital Expenditure
Operating Surplus
Operating Surplus
Net Cash Requirements
(in billions of dollars)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
.5
0
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
Year Ending

Table 26

Capital Expenditures and Borrowings

Province of Ontario, 1977-78 to 1988-1989

($ millions)

Year	Net Borrowings (1)	Net Cash Requirements (2)	Increase (Decrease) in Liquid Reserves (1) - (2) = (3)	Capital Expenditures (4)	Operating Funds Surplus (Deficit) (4) - (2) = (5) (3+4) - (1) = (5)
1977-78	1,506	1,762	(256)	1,536	(226)
1978-79	1,652	1,180	472	1,361	181
1979-80	1,132	584	548	1,561	977
1980-81	968	803	165	1,709	906
1981-82	1,363	1,503	(140)	2,311	808
1982-83	2,051	2,478	(427)	2,306	(172)
1983-84	2,860	2,289	571	2,244	(45)
1984-85	2,090	1,702	388	2,259	557
1985-86	2,102	2,110*	(8)	2,199	89
1986-87	1,194	1,348	(154)	2,558	1,210
1987-88 (interim)	901	1,193	(292)	2,692	1,499
1988-89 (budget)	755	473	282	3,123	2,650

Notes:

(1) Proceeds of Loans minus Retirement of Loans.
(2) Expenditures minus Revenues plus or minus net Non-Budgetary Transactions.
(3) Cash, temporary investments and marketable securities. The balance at the end of 1986-87 was about $2 billion.
(4) Physical assets, buildings and land make up the bulk of this amount.
(5) Capital expenditures minus net cash requirements equals the surplus or deficit on current, operating expenditures. It is composed of the increase or decrease in liquid reserves plus capital investments and minus net borrowings.

*Includes Extraordinary Adjustments (net) of $505 million.

The above Table separates funds raised for operating purposes and funds raised for capital purposes. As shown in column 5, in eight of the current and previous eleven years, all operating fund requirements were met by taxation, federal transfers, or other revenue sources (i.e. no borrowed funds were involved). Net borrowings averaged $1.5 billion per year, but in most years were used to increase liquid reserves and to finance capital expenditures. Other capital expenditures were financed out of operating funds.

Source: Ontario Budget, various years.
Public Accounts, various years.

Figure 18
CANADIAN UNEMPLOYMENT RATES
BY EDUCATIONAL ATTAINMENT
1977 to 1987

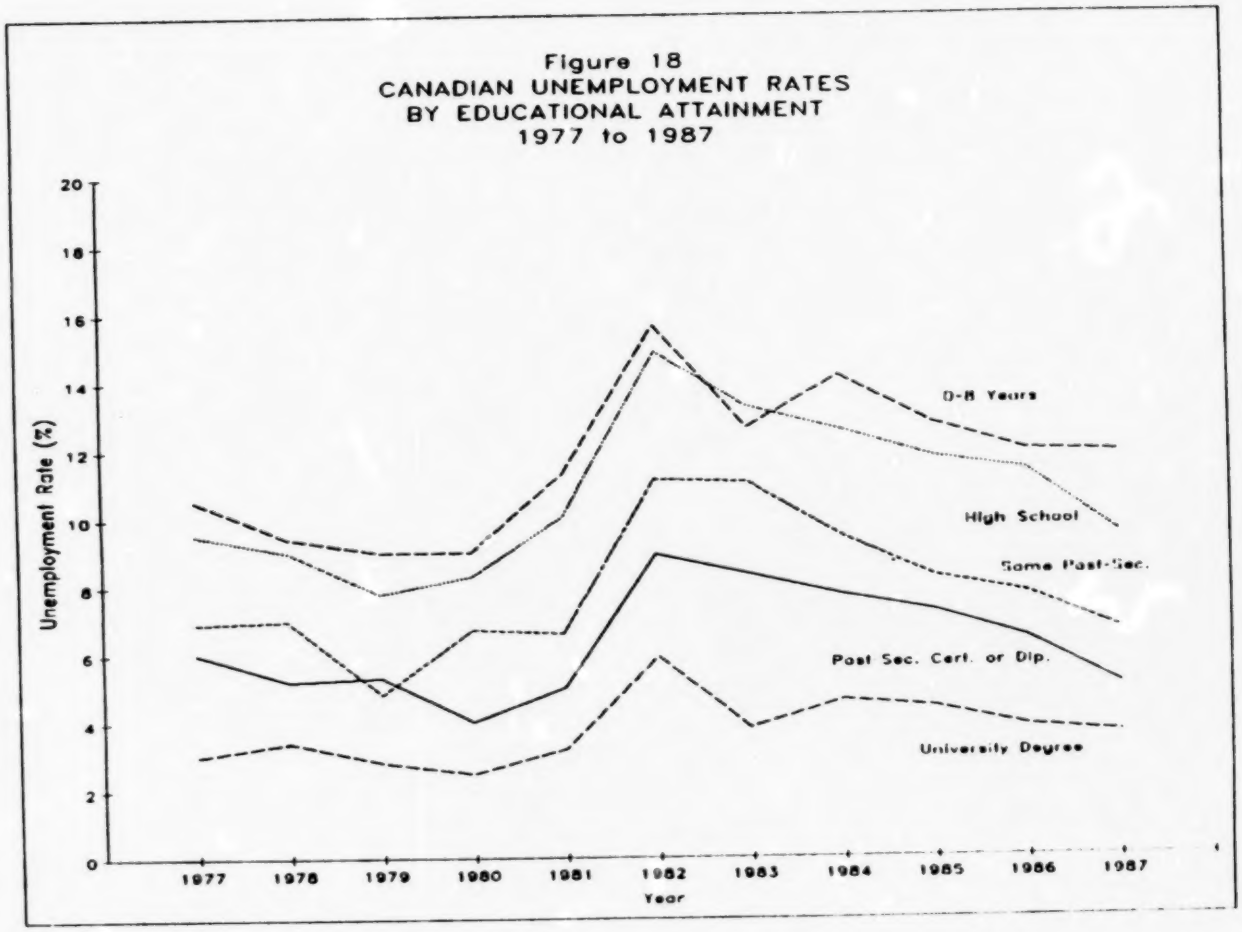


Table 27

Canadian Unemployment and Participation Rates

by Educational Attainment

(Seasonally Unadjusted)

	Unemployment Rates*											Participation** Rates
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1987
Total Canadian Labour Force	8.3%	7.9%	7.0%	7.1%	8.5%	12.7%	11.1%	10.7%	9.8%	9.3%	7.9%	65.5%
0-8 Years	10.5	9.4	9.0	9.0	11.3	15.6	12.6	14.1	12.7	11.9	11.8	37.7
High School	9.5	9.0	7.8	8.3	10.0	14.8	13.2	12.5	11.7	11.3	9.4	66.5
Some Post-Secondary	6.9	7.0	4.8	6.7	6.6	11.1	11.0	9.4	8.2	7.7	6.6	70.0
Post-Secondary Certificate or Diploma	6.0	5.2	5.3	4.0	5.0	8.9	8.3	7.7	7.2	6.4	5.0	80.1
University Degree	3.0	3.4	2.8	2.5	3.2	5.9	5.8	4.6	4.4	3.8	3.6	84.6

Source: Estimates by Educational Attainment. The Labour Force Monthly Report. Statistics Canada.

* As of December of each year.

** Labour Force percentage of population 15 years and over.

APPENDIX

Appendix

Update of the

Ontario University Non-Salary Price Index

The Ontario University Non-Salary Price Index was developed in 1978 to provide "a more sensitive tool to assist in measuring the likely impact of inflation on non-salary expenditure, and a more accurate measure of the extent of inflationary erosion between any two years."* The OUNSPI measures both component and global price changes for university non-salary expenditure. The components include library acquisitions, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations, and major repairs, externally contracted services, travel, insurance and space rental. In 1984, the OUNSPI was revised to take account of altered patterns of expenditure.

The following tables update both the index values and the price variations to 1986-87:

- Table A-1 provides information on the annual percentage variation of components.
- Table A-2 provides an update of index values for each component based on 1980-81 being equal to 100.0.

Figure A-1 identifies the sources of information for the various components employed in OUNSPI and indicates the index weights employed for each component in the calculation of the overall, non-salary price index.

* Council of Ontario Universities, Ontario University Non-Salary Price Index, February 1978.

Table A-1

Annual Percentage Variation in the Ontario University Non-Salary Price Index Components

Component	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Books	9.9	-3.7	-5.3	13.0	19.5	4.1	19.2	9.5	25.2	3.5	10.8	17.0	3.2	2.5	9.2	-1.7
Periodicals	8.3	11.3	23.7	6.9	17.1	9.5	17.8	22.3	11.0	14.5	16.1	17.6	12.5	16.7	13.0	7.9
Equipment	1.4	0.4	5.2	19.2	13.1	4.6	16.5	15.0	11.1	12.5	15.3	7.3	2.8	9.1	5.8	0.6
Computing	1.9	1.4	1.2	3.4	7.9	0.5	9.1	6.2	5.9	19.8	14.9	1.4	0.4	6.6	12.2	-0.9
Furniture	5.0	4.7	11.0	14.8	8.5	6.1	4.9	7.0	12.8	10.4	12.3	7.2	4.5	6.7	6.0	4.7
Stationery and Paper	1.1	2.0	20.3	33.8	9.0	3.6	5.0	9.9	17.3	14.1	9.0	-0.6	0.9	10.7	-0.5	6.9
Printing Materials	1.7	4.5	22.7	23.5	2.2	-0.7	4.2	7.2	14.2	10.0	10.3	2.6	2.7	6.7	0.1	6.0
Tools and Apparatus	3.2	2.3	6.8	16.0	10.9	6.5	11.6	10.6	16.7	14.3	11.6	8.3	4.3	5.9	5.0	3.5
Chemicals	1.1	1.8	11.0	30.5	10.0	4.2	6.0	8.7	16.7	15.0	12.7	5.0	3.3	2.7	2.1	0.1
Postage	12.3	7.6	-	-	0.4	19.3	25.3	17.0	19.6	0.2	24.2	40.9	5.1	0.0	10.8	2.5
Long Distance	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6
Electricity	4.9	6.9	8.0	8.2	9.4	28.3	28.3	5.3	10.4	11.7	9.8	9.7	8.3	8.1	6.5	4.6
Gas	1.5	0.4	4.9	12.4	25.8	22.1	15.6	14.6	5.5	17.9	-25.5	22.0	5.0	1.4	0.0	-0.6
Oil	11.7	-3.3	54.4	52.1	10.1	18.5	20.8	14.8	26.8	22.4	24.6	7.4	13.7	11.9	-5.2	-37.6
Telephone	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6
Water	-	-	-	7.7	8.5	12.3	11.7	7.6	7.3	8.3	12.4	11.7	6.7	6.5	6.5	3.1
Renovations	4.4	5.2	11.9	19.0	5.5	5.6	6.8	11.1	15.1	9.4	9.7	4.8	4.6	3.3	4.4	5.0
Transportation	3.9	1.8	5.0	11.0	12.2	9.2	6.0	6.6	11.4	14.4	18.1	10.7	4.7	3.9	5.0	2.0
Shelter	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3
Food Away From Home	4.5	7.6	15.7	18.4	11.9	7.4	5.3	8.7	12.1	8.5	9.9	9.6	4.5	4.0	4.3	4.9
Insurance	28.5	20.9	22.4	13.2	26.0	21.2	12.2	5.9	5.8	8.9	20.0	8.4	5.6	2.8	5.4	10.5
Space Rental	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3

e = estimated figure

Table A-2

Component Price Indices in the Ontario University Non-Salary Price Index

(Based on the Fiscal Year 1980-81 = 100)

Components	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Books	42.0	46.1	44.4	42.0	47.5	56.8	58.1	70.5	77.2	95.6	100.0	110.8	129.6	133.8	137.2	149.8	147.2
Periodicals	25.7	29.0	32.2	39.8	42.6	49.9	54.6	64.3	78.7	87.4	100.0	116.1	136.5	153.6	179.3	202.7	218.6
Equipment	39.6	40.1	40.3	42.4	50.5	57.1	59.7	69.6	80.0	88.9	100.0	115.3	123.7	127.2	138.8	146.9	147.8
Computing	58.0	59.1	60.0	60.7	62.7	67.7	68.0	74.2	78.8	83.5	100.0	114.9	116.5	117.0	124.7	139.9	138.6
Furniture	44.4	46.6	48.8	54.1	62.1	67.4	71.5	75.0	80.3	90.5	100.0	112.3	120.3	125.7	134.1	142.1	148.8
Stationery and Paper	34.5	34.9	35.6	42.8	57.3	62.4	64.7	68.0	74.7	87.6	100.0	109.0	108.4	109.3	121.0	120.4	128.7
Printing Materials	43.6	44.4	46.4	56.9	70.3	71.8	71.3	74.2	79.6	90.9	100.0	110.3	113.2	116.2	124.0	124.2	131.6
Tools and Apparatus	39.3	40.6	41.5	44.3	51.4	57.1	60.7	67.8	74.9	87.5	100.0	111.6	120.9	126.1	133.5	140.2	145.1
Chemicals	37.9	38.3	39.0	43.3	56.4	62.1	64.7	68.6	74.5	86.9	100.0	112.7	118.3	122.2	125.6	128.2	128.3
Postage	39.3	44.2	47.5	47.5	47.5	47.7	56.9	71.3	83.4	98.8	100.0	124.2	175.0	183.9	183.9	203.7	208.8
Long Distance	65.2	66.9	66.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7
Electricity	32.7	34.3	36.6	39.6	42.8	46.8	60.0	77.0	81.1	80.5	100.0	109.8	120.5	130.5	141.1	150.2	157.2
Gas	32.9	33.4	33.5	35.1	38.5	49.7	60.7	70.2	80.4	84.8	100.0	126.5	154.3	162.0	164.3	164.3	163.3
Oil	14.0	15.7	15.2	23.4	35.6	39.2	46.5	56.2	64.5	81.7	100.0	124.6	133.8	152.2	170.3	161.5	100.7
Telephone	65.2	66.9	66.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7
Water	54.5	54.5	54.5	54.5	58.7	63.7	71.6	80.0	86.0	92.3	100.0	112.4	125.5	134.0	142.8	152.1	156.8
Renovations	41.1	42.9	45.1	50.5	60.0	63.4	66.9	71.5	79.4	91.4	100.0	109.7	115.0	120.2	124.2	129.6	136.1
Transportation	46.0	47.7	48.6	51.1	56.7	63.6	69.5	73.7	78.5	87.4	100.0	118.1	130.7	136.7	142.1	149.2	152.1
Shelter	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3
Food Away From Home	38.8	40.5	43.6	50.4	59.7	66.8	71.8	75.6	82.2	92.1	100.0	109.9	120.4	125.6	130.9	136.5	143.2
Insurance	22.2	28.6	34.5	42.3	47.8	60.3	73.0	82.0	86.8	91.9	100.0	120.0	130.1	137.3	141.2	148.8	164.5
Space Rental	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3

e = estimated figure.

Figure A-1

Source and Weighting Pattern of Component Indices

Component	Index Weight	Source
Books	7	Bowker (U.S.) Hardcover Book Price Index, converted for Canadian dollar fluctuations
Periodicals	7	Bowker (U.S.) Periodical Price Index, converted for Canadian dollar fluctuations
Equipment	10	U.S. Department of Commerce, Survey of Current Business, Price index for machinery and equipment, converted for Canadian dollar fluctuations
Computing	10	Research Associates of Washington, Higher Education Prices and Price Indexes: 1986 Update, Data processing hardware, Converted for Canadian dollar fluctuations
Furniture	2	Statistics Canada Industrial Product Price Index - Office Furniture Industries
Stationery and Paper	8	Statistics Canada Industrial Product Price Index - Paper and Allied Product Industries
Printing Materials	7	Statistics Canada Industrial Product Price Index - Fine Papers
Tools and Apparatus	8	Statistics Canada Industrial Product Price Index - Hardware, Tool and Cutlery Industries
Chemicals	4	Statistics Canada Industrial Product Price Index - Chemical & Chemical Products Industries
Postage	3	Statistics Canada Consumer Price Index - Postage
Long Distance	2	Statistics Canada Consumer Price Index - Communications
Electricity	9	Statistics Canada Industry Selling Price Index - Electric Power Selling Price Index (Non-Residential) over 5,000 KW - Ontario
Gas	7	Statistics Canada Consumer Price Index - Piped and Bottled Gas
Oil	1	Statistics Canada Industrial Product Price Index - Heavy Fuel Oil
Telephone	4	Statistics Canada Consumer Price Index - Communications
Water	1	Statistics Canada Consumer Price Index - Water
Renovations	3	Statistics Canada Construction Building Material Price Index - Non-Residential
Transportation	3	Statistics Canada Consumer Price Index - Transportation
Shelter	1	Statistics Canada Consumer Price Index - Shelter
Food Away From Home	1	Statistics Canada Consumer Price Index - Food Purchased From Restaurants
Insurance	1	Statistics Canada Consumer Price Index - Homeowner's Insurance Premiums
Space Rental	1	Statistics Canada Consumer Price Index - Shelter